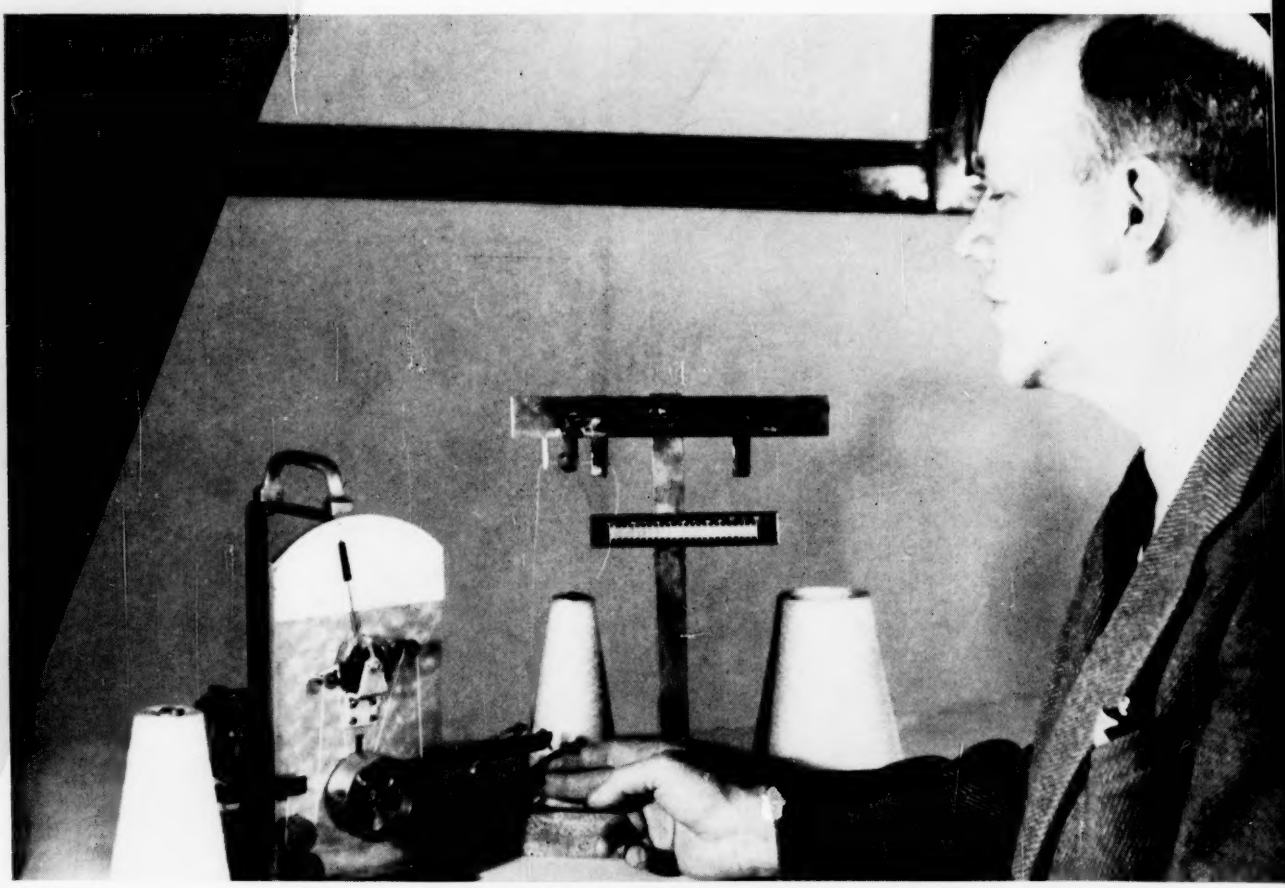
February 1956

50¢ per copy $3 per year

manufacturers record

THE NEWSMAGAZINE OF SOUTHERN SCIENCE AND INDUSTRY

Big Boom in Aluminum .....p. 9
Wood Preserving Industry .....p. 13
Solar Energy Opportunities .....p. 20
Charlie Younts' Success Story .....p. 22
Millions For Development .....p. 42
New Blue Book Plan .....p. 56



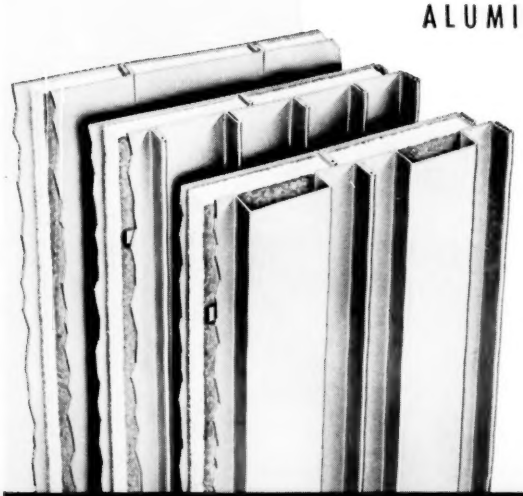
Textile Researcher W. F. Luther Looks For New Horizons in Industrial Chattanooga . . . p. 25

A CONWAY PUBLICATION EST. 1882

INSULATED METAL WALLS

for INDUSTRIAL and COMMERCIAL BUILDINGS

ALUMINUM, STAINLESS or GALVANIZED STEEL



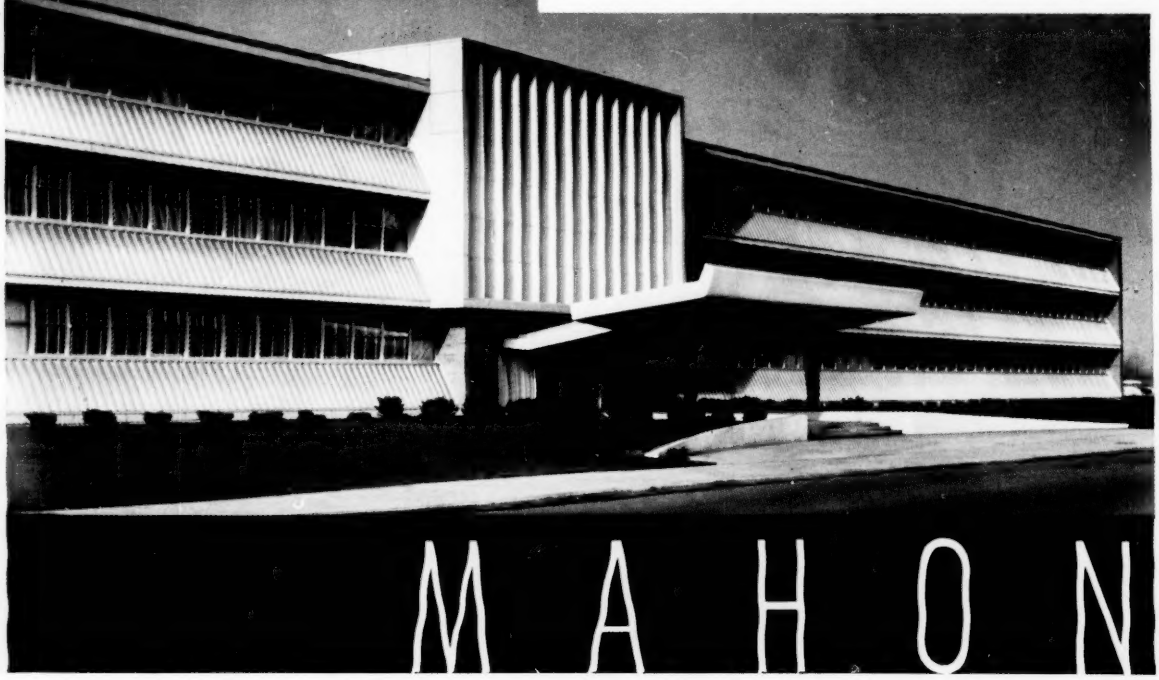
FLUSH, RIBBED, or FLUTED
Over-all "U" Factor of Various Types is Equivalent to or Better than Conventional 16" Masonry Wall

In addition to their nationwide use in the construction of industrial plants, powerhouses, and commercial buildings of all types, insulated metal curtain walls of bright aluminum and stainless steel have recently been appearing in an increasing number of modern office buildings, schools and even monumental buildings. Stainless steel wall plates are used in the natural metal finish, but in many instances aluminum plates have been employed in grained, mottled or tinted finish for distinctive design effects in combination with other materials such as brick, ornamental stone, glass block or stained wood. With such a versatile product, the possibilities in design effects in exterior treatment are virtually unlimited. Why not have a Mahon engineer call and show you some interesting examples in which insulated metal walls have been employed to good advantage in combination with other materials to achieve unusually attractive, individualized exteriors. The office building below is one of many. Mahon Insulated Metal Walls are available in three exterior patterns . . . the "Fluted" and the "Ribbed" wall can be field constructed up to sixty feet in height without a horizontal joint—a feature of Mahon walls which, from an appearance standpoint, is extremely important in buildings where high expanses of unbroken wall surface are common. See Sweet's Files for complete information, or write for Mahon Catalog W-56.

THE R. C. MAHON COMPANY • Detroit 34, Michigan

Sales-Engineering Offices in Detroit, New York and Chicago • Representatives in Principal Cities

Manufacturers of Insulated Metal Walls and Wall Panels, M-Floors (Electrified Cel-Beam Floor Systems), Permanent Steel Floor Forms, Steel Roof Deck and Long Span M-Decks, Rolling Steel Doors, Grilles, and Underwriters' Labeled Automatic Rolling Steel Fire Doors and Fire Shutters.



MAHON

nufacturers record

NEWSMAGAZINE OF SOUTHERN
ENCE AND INDUSTRY—EST. 1882

Volume 125 FEBRUARY 1956 Number 2

BPA

Issued monthly by Conway Publications. Editorial and business office, Conway Building, North Atlanta 19, Ga. Publication office, 109 Market Place, Baltimore 2, Md. Official publication of the Southern Association of Science and Industry, Inc.

H. McKINLEY CONWAY, JR.
Editor and Publisher

H. G. Hand, Jr. ..... *Advertising Director*

D. G. Coleman ..... *Editorial Assistant*

H. Q. Harrington ..... *Advertising Assistant*

Lyla J. Downs ..... *Circulation Manager*

R. K. Conway ..... *Business Manager*

D. M. Booker ..... *Research Assistant*

H. C. Ley ..... *Research Assistant*

OFFICES AND REPRESENTATIVES

BALTIMORE — Harold L. Sorrell, Production Manager, 109 Market Place, Tel. Lexington 9-7065.

CHICAGO — Harley L. Ward, Inc., Advertising Representatives, 360 N. Michigan Avenue, Tel. Central 6-6269. Douglas H. Donohoo and Ed Crilly, Representatives.

LOS ANGELES — Duncan A. Scott & Company, Advertising Representatives, 2978 Wilshire Boulevard, Tel. Dunkirk 8-4151. Peter Schulz, Representative.

NEW YORK — Norris H. Evans, Advertising Representative, Upper Montclair, New Jersey, Tel. Montclair 2-6951, New York PLaza 5-1127.

ORLANDO — Charles Layng, Associate Editor and Executive Representative, 714 Oak Avenue, Tel. 2-3244.

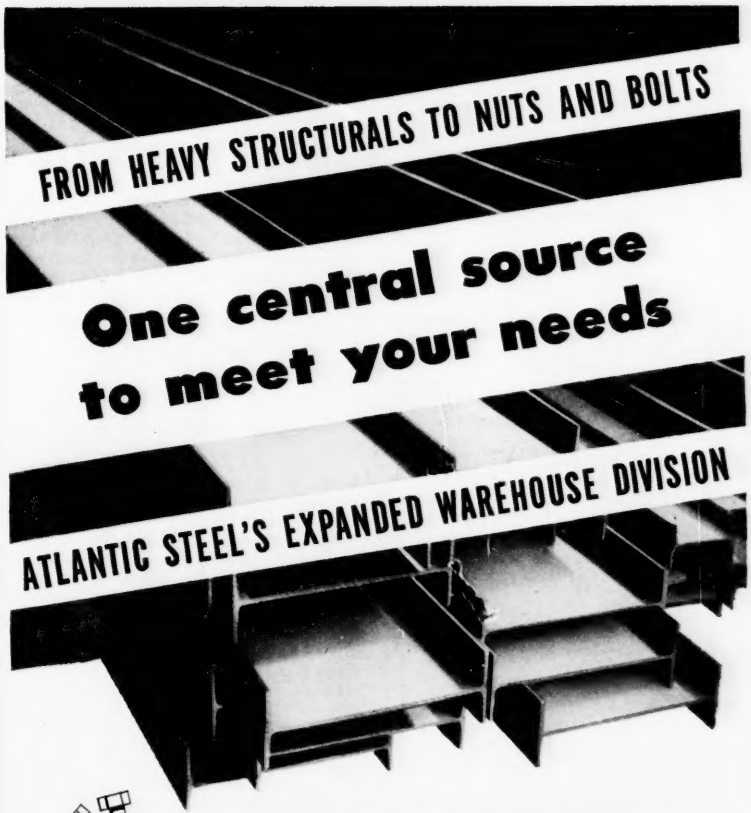
SAN FRANCISCO — Duncan A. Scott & Company, Advertising Representatives, Penthouse, Mills Building, Tel. Garfield 1-7950. Cyril B. Jobson, Representative.

WASHINGTON, D. C. — Caldwell R. Walker, Washington Correspondent and Associate Editor, 2415 E. Street, N. W., Tel. District 7-3727.

A subscription to MANUFACTURERS RECORD is included in the dues of all members of SASI. The subscription rate for libraries or non-members is $3 per year in the U.S.A. and possessions, $4 to other countries. Single copies 50¢, back numbers $1. Entered as second class matter at Baltimore, Md. under the act of March 3, 1879.

Subscribers to the RECORD receive without additional cost the annual SOUTHERN INDUSTRIAL DIRECTORY and the BLUE BOOK OF SOUTHERN PROGRESS when issued. Other Conway Publications include INDUSTRIAL DEVELOPMENT, the national magazine of area analysis and business site selection, and the SITE SELECTION HANDBOOK. All correspondence should be addressed to Conway Publications, North Atlanta 19, Ga.

Copyright 1956 by Conway Publications.


FROM HEAVY STRUCTURALS TO NUTS AND BOLTS
One central source to meet your needs
ATLANTIC STEEL'S EXPANDED WAREHOUSE DIVISION

Now a single call makes available to you one of the South's largest varieties of steel warehouse products: CARBON AND STAINLESS STEEL BARS, SHAPES, SHEETS, AND PLATES; LIGHT AND HEAVY STRUCTURAL SECTIONS (UP TO 65′ LONG); COLD-ROLLED BARS; MANY COPPER PRODUCTS; AND THE NEWEST ADDITION TO OUR LINE—ALUMINUM BARS, SHAPES, RODS, SHEETS, PLATES, AND TUBING.

This larger selection is available to you now because our Warehouse Division's storage space has been increased 50%. More than 100,000 square feet of warehouse space hold ready for immediate shipment the items you need.

Join the thousands of businesses large and small who depend on Atlantic for service.

"Service In Step With Southern Progress"

AMERICAN STEEL WAREHOUSE ASSOCIATION — BETTER DISTRIBUTION

WAREHOUSE DIVISION

Atlantic Steel Company

14th STREET AT NORTHSIDE DR., N.W., ATLANTA, GEORGIA • EMerson-3451

We suggest . . .

"THE VERSATILE DESICCANT"

For All Drying Operations

of

Institution-Industry
Laboratory-Plant

Efficient—Dries all organic liquids instantly in liquid or vapor phase. Gases retain only 0.005 mg. H_2O per liter.

Versatile—An all purpose desiccant.

Non-Wetting—Does not become wet on saturation, nor crystallize to walls of tubes, towers, or desiccators.

Neutral—Dries without reacting with either acid or alkaline materials.

Inert—Except toward water. Does not decompose, polymerize, or catalyze organic substances by contact. Insoluble in organic liquids.

Regenerative—Repeatedly after any normal use, by dehydration at 400 to 450° F.

Economical — Lowest priced high grade desiccant. Available in quantity for industrial processes.

REFERENCES

(1) Ind. Eng. Chem. 25-653 (June, 1933)
(2) Ind. Eng. Chem. 25-1112 (Oct., 1933)
(3) National Bureau of Standards Journal of Research 12-241 (Feb., 1934, R. P. No. 649)

Granule Sizes 2, 4, 6, 8, 10-20, and minus 20 mesh.

Write for literature and quotations

W. A. Hammond Drierite Co.
120 Dayton Avenue
XENIA, OHIO

LETTERS

SIRS: First, I want to congratulate you and your staff for the excellent publication, INDUSTRIAL DEVELOPMENT, which has matured greatly in the past year. It is a helpful guide to me and has provided many answers to local industrial problems.

My main reason for writing to you is to bring out a fact that does not get much attention when we start talking about industrial development. I refer to the development of local industry and talent. I get a guilty feeling every time I attend an industrial meeting listening to the same procedures over and over again on how to attract new industry when I know perfectly well more time should be allotted to home industry. Outside industry, of course, is always welcome, but I believe local development is one of the best advertising mediums for attracting outside industry.

We have assisted in the establishment of two local plants. A garnetting firm and a Die Casting Company. Local people bought common stock and debentures in the firms. Another company is expanding its plant 15,000 square feet. The plant manager made the statement that industry grows when nurtured and that he believes their success is a manifestation of our ability to serve industry. A high compliment indeed, and a very good example for every town.

The Governor of our State realizes the tremendous potentiality of developing small business with local talent and deposits are now being made in a fund to assist small business to start in a profitable venture.

I would like to see you print more helpful information about local development. Let us not forget those plants which have contributed to our growth.

C. R. STROUSE, Mgr.
Reidsville Chamber of Commerce
Reidsville, N. C.

SIRS: It is highly gratifying that you will steer the MANUFACTURERS RECORD. It is the only regional voice and I believe you not only will make it more articulate, but will extend its impact.

Three years study of human relations in business have led the Management Research Institute to conclude that the American search for an impossible economic security is a symptom of a deficiency in spiritual security. Confirmation is in the countrywide rise in church membership in a peak of national prosperity, against the previous conviction that it is hard times that drive people to religion.

In seeking ways to introduce more spirituality into people's daily work, the Institute finds that in general there is what amounts to a taboo against mixing religion with business. But the Institute has developed techniques for improving business operations which create increases in employee interest and productivity, with such uplifts of human spirit and morale as to indicate a receptive atmosphere for introducing some spiritual associations on the job. The Institute is convinced that where this is done, the taboo may be removed gradually, with multiple benefits to employers and workers.

Any observations by employers on their experiences or views on this potential will be welcomed by the Institute for additions to its studies.

The Institute also is prepared to conduct pilot tests on this with as many as four interested companies on a cooperative basis for costs and services. For these tests, the companies may be in manufacturing or service activities, with from 500 to 2000 employees on operations centered in one location, preferably in the Southeast to save travel time and expense.

FREDERICK H. McDONALD
Management Research Institute
Charleston, S. C.

SIRS: I've long been interested in Southern development. All congratulations upon your progress in acquiring new industries. I was in New England for several months—almost a year—and I saw much dissatisfaction among New England industrialists with their outlook.

CRADDOCK H. GOINS
Guide Publications
Baltimore, Md.

SIRS: I am very much interested to know that you have taken over the MANUFACTURERS RECORD and that its operation will be transferred from Baltimore to Atlanta. I have heard so much about you from Mr. Crist and our other men in the South and the good work you have done for the Southeast.

If at any time I can be of help please let me know.

E. A. YATES, Chm. of the Board
The Southern Co.
New York, New York

SIRS: It is with considerable interest that I note from the press that you have taken over MANUFACTURERS RECORD which will be another in your string of publications.

May I wish you every success in this and your other ventures.

PAUL KELLY, Chief, Research & Statistics, N. C. Dept. Conservation and Development
Raleigh, N. C.

SIRS: Dr. Stewart Lloyd of the University here has suggested that I write you to ask whether you know if any of the major chemical companies are interested in manufacturing milk bottles from some polyethylene plastic. It would seem the ideal light, durable material if it will stand sterilization since the waxed paper cartons still have some unpleasant features. I will appreciate any facts you can give me about this.

MRS. B. A. BURKS
Burchfield Hotel
Tuscaloosa, Ala.

SIRS: Please help us locate firms that would be interested in buying ash sawdust. It can be used for excellent alcohol-sweeping compounds, etc.

J. V. WILLIAMSON, Vice Pres.
Ray Handle Co., Inc.
Fort Smith, Ark.

SIRS: Unless something is done soon to stop the rising Chinese birth rate, in a few years we are going to be engaged in a war trying to stop them from over-running all of Europe.

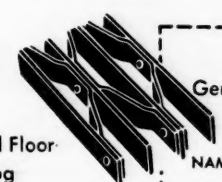
WILLIAM R. SULLIVAN
720 W. Tenth Pl.
Los Angeles, Calif.

► Which reminds us of the colored man who was afraid to have any more children because he had heard that every sixth child born in the world was Chinese.

BORDEN MANUFACTURES EVERY TYPE FLOOR GRATING

IN FERROUS AND NON-FERROUS METALS

- **EASY TO INSTALL** — engineered in conveniently sized units for easy installation.
- **EXTRA STRONG** — reinforced, designed with maximum safety factor.
- **LIGHT WEIGHT** — approximately 80% open, reduces dead weight, allows greater live load.
- **SELF-CLEANING** — creates greater safety, economy of maintenance, no sweeping or washing required.



Write for complete information on BORDEN All/Weld, Pressure Locked, and Riveted Floor Gratings in this FREE 8-page catalog

BORDEN METAL PRODUCTS CO.

854 GREEN LANE Elizabeth 2-6410 ELIZABETH, N. J.
SOUTHERN PLANT—LEEDS, ALA. — MAIN PLANT—UNION, N. J.

BORDEN METAL PRODUCTS CO.

Gentlemen:

Please send me BORDEN Catalog

NAME .....

TITLE .....

COMPANY NAME .....

ST. AND NO. .....

CITY AND STATE .....

Sargent

Thermistor Actuated

Temperature Controlling Instruments

MODEL S THERMONITOR

- ±0.01°C Sensitivity
- Dial Setting
- Proportionate Control
- No Circuit Breaking
- Rapid Response
- General Purpose

S-82050 THERMONITOR—Model S, Thermistor Actuated, Temperature Detecting and Controlling, ± 0.01°C, Sargent.

A compact, completely electronic unit for detecting and controlling the temperature of laboratory baths over the working range of —10°C to 100°C or by substitution of a second Thermometric element, 100°C to 200°C with an operating sensitivity of greater than ±0.01°C. Three outlets are provided for immersion heaters. The first outlet is controlled by thermistor. The second outlet is non-regulated, accommodating power quantities up to 300 watts, adjusted by variable transformer. The third outlet having a power consumption of 500 watts, is for second base heater or a circulating device. Temperatures are set and reproduced by adjusting dials on panel. Proportionate control eliminates temperature overshoot and undershoot.

Complete with thermistor assembly, connecting cable and 3-wire line cord and plug. Without immersion heaters or circulating device. For operation from 115 volt, 60 cycle circuits.....**$275.00**

MODEL T THERMONITOR

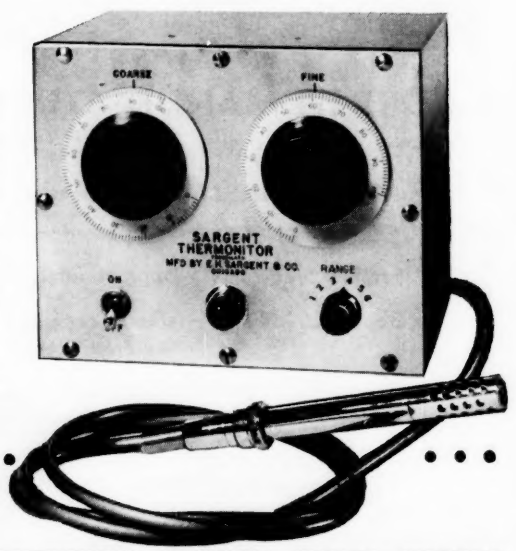
- ±0.1°C Sensitivity
- Dial Setting
- Rapid Response
- Versatility of Application

S-82065 THERMONITOR—Model T, Thermistor Actuated, Temperature Detecting and Controlling, ± 0.1°C, Sargent.

A simplified model of the Thermonitor, Model S, without immersion heaters and circulating facilities but with two power outlets and controls necessary to provide a sensitivity of greater than ±0.1°C in the range from —10°C to 100°C or by substitution of a second Thermometric element, 100°C to 200°C.

One outlet is for regulating heater which is automatically controlled by the thermistor through a relay circuit. The second outlet is for use with an auxiliary heater or appropriate circulating device.

Complete with thermistor assembly, thermistor connecting cable and 3-wire line cord and plug. Without immersion heaters or circulating device. For operation from 115 volt, 60 cycle A.C. circuits **$125.00**



SARGENT

SCIENTIFIC LABORATORY INSTRUMENTS • APPARATUS • SUPPLIES • CHEMICALS

Catalog No. 100 Now Available

E. H. SARGENT & COMPANY, 4647 W. FOSTER AVE., CHICAGO 30, ILLINOIS
MICHIGAN DIVISION, 8560 WEST CHICAGO AVENUE, DETROIT 4, MICHIGAN
SOUTHWESTERN DIVISION, 5915 PEELER STREET, DALLAS 19, TEXAS
SOUTHEASTERN DIVISION, 3125 SEVENTH AVE., N., BIRMINGHAM 4, ALA.

Where Is SREB Headed?

We don't like to raise a discordant note in regional affairs—in fact, one of our major objectives over the years has been the promotion of better relations among the numerous organizations working to advance the South.

Thus, in the interest of harmony, we have maintained an editorial silence for several years concerning the activities of the Southern Regional Education Board headed by Dr. John E. Ivey. We have preferred to give this group the benefit of the doubt.

But now we have reached the point that we feel some public discussion of SREB objectives is indicated. An increasing number of thoughtful people are asking about the motives of the Board.

SREB was established in 1948 to administer a program of exchanging students among the various Southern states. The plan made it possible, for example, for a state which had no medical college for negroes to send students to another Southern state which had such facilities. The threat of desegregation was a major factor in setting up the organization.

Certainly, it was the opinion of all observers during the early days of SREB that the group would—as the name implied—be concerned with academic affairs. SREB was an *educational* organization set up specifically for the purpose of handling certain *educational* affairs.

But the history of SREB has been one of steady expansion into a variety of fields. Perhaps it is only a coincidence, but SREB has followed a familiar pattern of bureaucratic development, increasing its budget and scope of action at every opportunity.

Those who have the gravest doubts about the program see it as the attempt of a group of people of a certain viewpoint to gain influence that could not be obtained in the various Southern states individually. In effect, SREB constitutes a regional governmental unit relatively free of the legislative and executive scrutiny to which the usual state agencies are regularly subjected.

Perhaps it is a coincidence that the majority of the key personnel recruited by SREB in its early years were social scientists and former members of the staff of the TVA. Perhaps it is coincidental that business interests have never had an effective voice in the affairs of the organization.

And, so long as SREB remained in its field, these points might be overlooked. But the attempt of the SREB to assume a major role in industrial development activities now gives the matter an entirely different complexion.

SREB operates under the auspices of the Southern Governors Conference. Hence, SREB is in a position to influence legislation in all of the 15 Southern states.

It is only natural, therefore, for business leaders and those of independent viewpoint to view with concern the assumption by SREB of responsibilities in the industrial field.

SREB simply is not qualified to advise the Southern Governors in the field of industrial development! The logical group to do this is the Southern Association of Science and Industry, and, in fact, the Southern Governors have recognized this.

But apparently SREB does not want any group, SASI included, to share the platform at the Governors' Conference. SREB seems to want to dominate the scene, regardless of the topics to be covered.

This is indicated by the recent action of SREB with respect to atomic energy. At the last Governors Conference, a special subcommittee on science and industry called upon SASI to conduct a series of studies of technological growth industries, including atomic energy. This was the result of a careful analysis made over a period of months.

In the same meeting, without any advance planning, one of the governors unexpectedly suggested that SREB look into the field of atomic science, presumably the academic and educational aspects. In the closing minutes of the session, the conference hurriedly passed a resolution calling on SREB to hold a meeting to explore this matter.

A few weeks later, SREB issued a bulletin which gave the impression that the governors had turned over to them complete responsibility for development of atomic energy in the South. In fact Dr. Ivey said SREB was "planning a program of regional development with emphasis on nuclear industries."

Thus, the camel has his head in the tent. And SREB apparently is bent on taking over the entire *regional development program.* This would put a group considered to be left-of-center in position to advise the Southern Governors on such diverse matters as water conservation policy, industrial taxation, land-use planning, and all other factors which influence industrial development.

We think this poses a threat which should not go unnoticed. It is not in the interest of the South to have the SREB given responsibility for industrial development!

In fact, we might suggest that the South still has many *educational* problems which deserve attention. Attacking these might not afford as much political opportunity, but we feel it would be a more suitable activity for the SREB.

—H. M. C.

The Spirit of Service That Keeps on Growing

There is a heritage of service that is passed on from one generation of telephone people to another.

It had its beginning more than eighty years ago when Alexander Graham Bell gave the world its first telephone. It has grown as the business has grown.

Many times each day and night this spirit of service is expressed in some friendly, helpful act for someone in need. The courtesy, loyalty and teamwork that telephone people put into their daily jobs are a part of it.

Out of it have come the courage and inspiration that have surmounted fire and flood and storm.

We, the telephone people of today, are vested with the responsibility of carrying on this trust. It is human to make mistakes and so at times the job we do for you may not be all that we want it to be. But in the long run, we know that how we do our individual job and how we bear our individual responsibility will determine how we fulfill our trust.

For our business is above all a business of people . . . of men and women who live and work and serve in countless communities throughout the land.

BELL TELEPHONE SYSTEM

EDITED BY
Richard Edmonds..1882-1930
Frank Gould 1930-1943
William Beury ...1943-1955
McKinley Conway..1956-

MANUFACTURERS RECORD
(IN REVIEW)

"What Enriches The South Enriches The Nation"

FEBRUARY, 1883 **(AS ABSTRACTED MORE THAN 70 YEARS LATER)** **BALTIMORE, MD.**

An Important Move

We have often urged upon the railroads and the State governments of the South the great importance of taking some steps towards increasing immigration to that section, and it is with pleasure we note the incorporation by the legislature of Florida of a company, composed of English and American capitalists, to run a line of large steamers between Liverpool and different Florida ports. It is the intention of this company to devote their attention mainly to the emigrant business, and to the bringing over, in large numbers, foreigners desiring to settle in that and the adjoining States. With this object in view the managers of the company will endeavor to thoroughly advertise the advantages of Florida in all parts of Europe, and it is believed that large numbers of immigrants can be induced to settle in the South rather than go West. On the return trips from Florida to Liverpool, the steamers will take cotton, lumber, railroad ties, tropical fruit, etc., and it is anticipated that there will be no difficulty in obtaining full cargoes. If this scheme meets with success, and there seems to be no reason why it should not, it will open the way for a vast immigration from Europe to the Southern States. The South is today one of the most inviting fields in the world for immigration, and when its many advantages are more generally known we may reasonably expect a heavy flow of population to all of these States.

The South and Exhibition

Two opportunities are this year presented to the Southern States of thoroughly advertising their natural resources at a comparatively small cost. One is the Boston exhibition, which has invited from each Southern State a full display of its resources; and the other is the Southern exhibition, to be held in Louisville, opening on August 1st, for one hundred days. Both of these exhibitions promise to be very successful, and there is no doubt but what they will attract many thousands of visitors.

Manufacturing

As there has been a good deal of feeling existing for some time between the Farrell Foundry and Machine Company of Ansonia, Conn., who manufacture the Blake crusher with Marsden's improvement, and the Gates Iron Works, of this city, who manufacture to so-called greatest rockbreaker on earth, a challenge has been issued on the part of Mr. Marsden, of the former concern, and accepted by Mr. P. W. Gates, president of the latter, for a trial, to take place within 60 days, somewhere in the neighborhood of New York City, for the purpose of testing the superiority of the rival machines. As due notice of the trial will be given, it is expected that a number of railroad managers, mining men and others interested will be present.

At the Rock Hill Cotton Factory, N. C., new grates are being put in the boilers, and hereafter coal will be used instead of wood.

* * *

One of the most noticeable and important manufacturing establishments in the South is the Marshall Car Foundry Company, at Marshall, Tex. This is the most extensive manufacturing enterprise in this part of the State, and was incorporated in 1880, being the successor of the Marshall Manufacturing Company, which was established in 1875.

The foundry manufactures car wheels and all kinds of railroad castings, which are being produced from Texas iron, this metal being superior to most of the iron found in the Southwest for that purpose. The company also manufactures freight cars, their work in both cars and car wheels being almost exclusively for the Texas & Pacific Railroad and the International & Great Northern Railroad.

The foundry and shops were started seven years ago, with a capital of only $10,000, and the enterprise prospered so rapidly that it now has an invested capital of $140,000. They will soon erect a large blast furnace at the cost of $50,000, and turn out their own pig iron from native ores. The company manufactures an average of 800 car wheels per month, and employ in their busy seasons upward of 360 workmen in their foundry, machinery and car departments.

It is announced that the Maginnis Cotton Mills, in New Orleans, will be doubled in size. The superintendent, who is a Northern man says "that all the mills producing plain brown goods in the United States will be situated in the South in two decades."

* * *

Geographically considered, Nashville occupies the finest location for manufacturing industries of any city in the South. Perched upon several hills, with a solid limestone foundation, a beautiful stream running through her centre and surrounded by the loveliest agricultural district on the continent, she has a natural system of drainage, which renders her inhabitants exempt from the dreaded malaria of the South: while the rich fields adjacent supply an abundance of excellent food at moderate prices, as well as pleasing the eye by their kaleidoscopic changes of picturesque scenery.

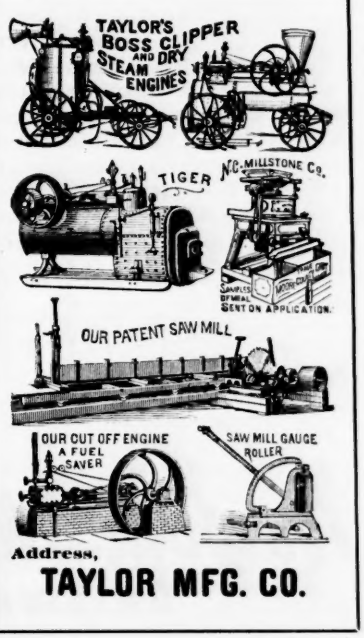
Editor's Note

We will esteem it a favor if our exchanges will remember that the name of this paper is the MANUFACTURERS RECORD, and so credit us their clippings, and not do as many of them have done lately in crediting to the *Manufacturers' Review*, the *Manufacturers' Gazette*, the *Manufacturing Review*, the *Record* &c, &c. Of late we have had so many names forced upon us that we must ask a little more care.

An Obituary Notice

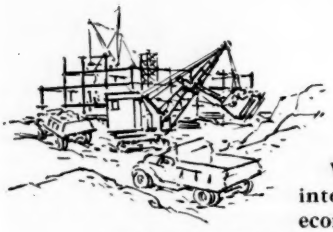
Sacred
To the Memory of
the
NASHVILLE
NATIONAL
EXPOSITION
-of 1883

Which died young by reason of too much courtesy in the Board of Directors, assisted by an occasional bucket of cold water introduced by one or two of the members at their infrequent attendance, and judiciously administered in broken doses. *Requiescat in pace.*



Mr. Manufacturer:

SMALL TOWNS HAVE BIG HEARTS FOR INDUSTRY



Where populations soar into huge numbers, the economic contributions of a plant employing 50 to 100 workers can easily be overlooked. ***But in smaller communities, these contributions are big, visible and really appreciated.***

For example, one of the towns along the N & W which is typical of these fine, smaller communities, has a population of 9,500. It offers an abundant water supply, excellent climate, nearby natural resources, plenty of skilled and unskilled home-rooted labor and excellent industrial sites at fair real estate values. Such towns roll out a big welcome carpet to manufacturing, large or small, because they know that *every additional 100 factory workers will:*

bring the community $590,000* more personal income per year —

add $270,000 more in bank deposits —

produce $360,000 more in annual retail sales —

and add 296 more people who will vote, pay taxes, support churches and charities, and make an all-around stronger community.

Communities along the N & W offer important advantages for efficient manufacture and distribution — *plus an appreciative and cooperative public.* Let our plant location specialists tell you about ideal plant sites in such communities . . . in confidence and without obligation.

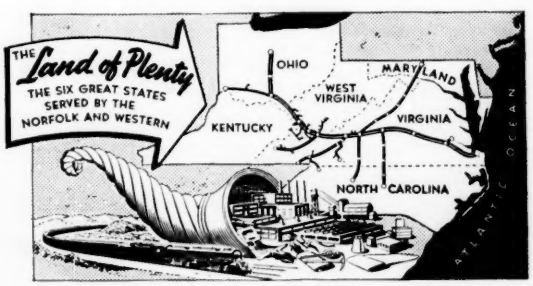
WRITE, WIRE or CALL

INDUSTRIAL AND AGRICULTURAL DEPARTMENT
Drawer MR-2, (Telephone 4-1451 Ext. 474)
NORFOLK AND WESTERN RAILWAY
Roanoke, Virginia

*All statistics based on averages established by the U. S. Chamber of Commerce.

Norfolk and Western RAILWAY

Transportation is a major factor in good plant location. Consult your traffic manager when you're choosing a plant site. He's a transportation expert.



INCREASED use of aluminum in automobiles, as in Hudson's new grill, is a major factor in the expansion of the aluminum industry. Some current models now contain as much as 197 pounds of aluminum as compared with an average of less than 10 pounds per car a decade ago.

Big Boom In Aluminum

The latest wave of expansion in the aluminum industry is almost entirely confined to the South. Reynolds Metals has just announced another $140 million plant at Listerhill, Alabama, on the heels of Kaiser's $60 million unit at Gramercy, Louisiana. And these announcements come only a few weeks after reports of huge new units in West Virginia.

LOUISVILLE. The aluminum industry is going to expand further in 1956 and the South will get a major share of the new growth.

That's the gist of a series of statements made in recent weeks by Reynolds Metals Company's busy president, R. S. Reynolds, Jr. In November Reynolds was keynote speaker at the annual meeting of the Alabama State Chamber of Commerce in Montgomery.

Then he hurried to Richmond for an open house at the firm's expanded metallurgical research laboratories. And, in rapid succession, Reynolds issued a series of year-end forecasts from company headquarters here in Louisville.

And in every statement, the expansion-minded executive exuded optimism for his firm, the aluminum industry, and the South.

"More aluminum will be used in 1956 than ever before," Reynolds predicts. The principal reason is the record supply, made possible by the steadily climbing output of domestic producers," he said. "During 1955, they supplied an estimated 3.1 billion pounds of new primary production, exceeding all expectations and setting a new record for the fourth successive year. The supply outlook for 1956 is another new high, with added facilities bringing production up to 3.3 billion pounds.

"Aluminum shipments to American industry during 1955 have been about 35% higher than in 1954 and are increasing month after month," Reynolds stated. "Every branch of the aluminum industry has reflected the growth of industrial and consumer markets. The sharpest expansion, however, has occurred in extruded, cast and foil products.

"New uses for aluminum are still being developed at a rapid rate by the aluminum industry and its customers," Reynolds declared. "The automotive industry is accelerating its consumption of aluminum," he stated, "with one of the latest models using 197 pounds per car, including gold-anodized aluminum grilles. In contrast, the average use of aluminum ten years ago was less than ten pounds per car."

In the electrical field, Reynolds pointed to his company's development of a new type of aluminum strip which is self-insulating as a result of special anodized treatment. "Drastic reductions in the cost and weight of electrical equipment are expected to result from the adoption of this newly designed aluminum material for transformers and other electrical equipment instead of the conventionally insulated wire ordinarily used," Reynolds stated.

"These new uses are illustrative of what is happening in all of the major aluminum markets, including construction, appliances and packaging," Reynolds emphasized. "The confidence in the continued growth of aluminum markets is reflected in the entirely new cycle of expansion which is getting under way.

The construction of extensions to existing Reynolds Metals plants is progressing rapidly. A new Ohio River Valley plant, to be started early in 1956, will bring the Company's total capacity to 1.1 billion pounds. Announced expansion plans of all present and prospective producers will add a total of 1.4 billion pounds of new capacity within the next few years, a 46% increase over the total 1955 capacity.

"This new expansion," Reynolds said, "is remarkable for many reasons:

1. The expansion program begun during the Korean War was completed only a few months ago, more than doubling the nation's annual primary production since 1950.
2. This expansion has been undertaken even though plant construction costs have continued to rise,

far more than aluminum prices have.

3. This expansion is based entirely on the bright prospects for future peacetime markets. Although the added capacity improves the nation's mobilization position, it is not based on any military emergency orders or requirements.
4. All of the existing producers are depending entirely on private financing for their capital requirements, without the benefit of rapid tax amortization or government guarantees.

"With the continued rapid growth of aluminum markets and in view of the industry's prompt and steady expansion of its supply," Reynolds asserted, "the outlook for 1956 is brighter than ever before."

Research Open-House

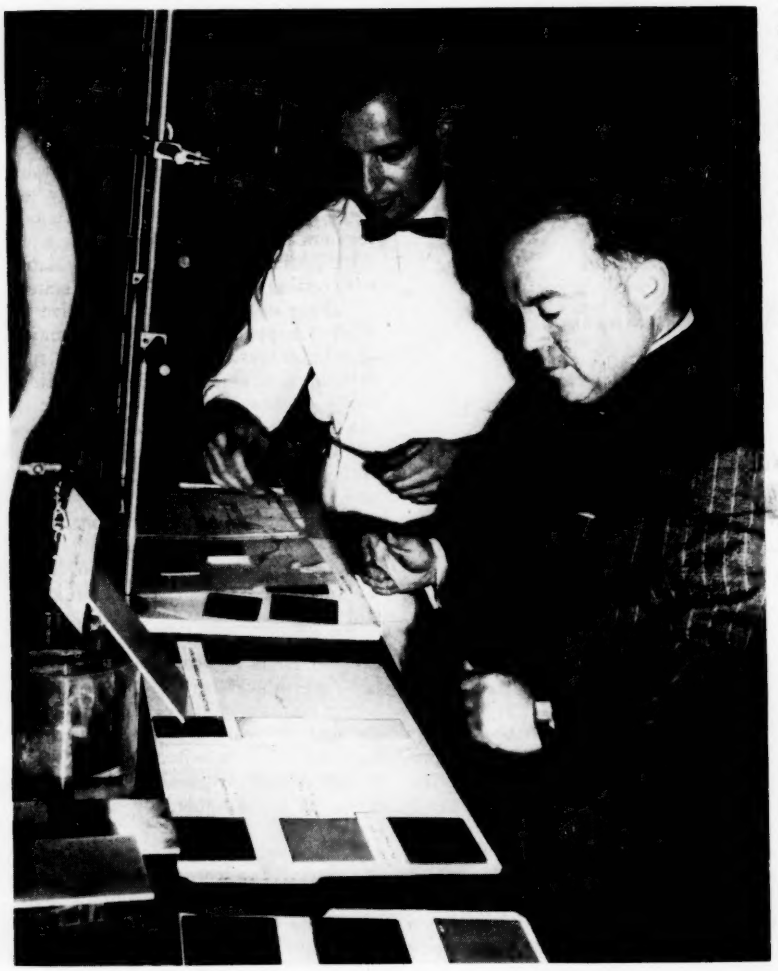
In Richmond, Reynolds recently led company employees in a close-up inspection of a little-publicized department—the metallurgical research laboratory. In this facility 72 workers concentrate their efforts on studies of aluminum and its applications to products for home and industry.

For example, a solar oven has been under development for more than a year. Consisting of 16 square feet of aluminum shaped roughly like an oversize funnel, it reflects the sun's rays through a pane of glass into the oven chamber itself. On an October day in Richmond, the oven temperature has reached 350 degrees; in the tropics, the temperature can reach as high as 600 degrees.

The oven is designed for use in preparing food in tropical and semi-tropical countries. The oven works fine—the only problem is bringing its cost down to a level in keeping with the low economic levels of some of these nations.

The research laboratory's equipment includes complete facilities for melting, casting, and rolling aluminum for alloy studies. Activities include establishing analytical methods for high-speed automatic instruments to control alloying ingredients for aluminum, and development of these alloys with permanent colors.

Finishing research includes studies of anodizing (applying a film of aluminum oxide either in natural aluminum or in colors), porcelainizing, metallizing (putting designs on the metal), and painting.



REYNOLDS METALS' dynamic president R. S. Reynolds, Jr., (right) checks a coating project in the firm's Richmond metallurgical laboratories. Demonstrating color samples is Dr. E. R. Ramirez, research chemist.

Cites Expansion Factors

In his Montgomery speech, Reynolds pointed out that the aluminum industry of the country is concentrated, to a very large extent, in the South. There are nine primary producing plants in Alabama, North Carolina, Tennessee, Arkansas, Louisiana, and Texas.

And, he emphasized, these six states also have "practically all of the country's alumina-producing plants." Continuing, Reynolds told Alabama businessmen:

"One might ask the question, "What makes the South the principal aluminum producing section of the country?" The answer, in my judgment, involves the accessibility of the three essential elements required in the production of aluminum:

1. Large quantities of low cost fuel—both natural gas and coal—and electric power at reasonable rates.
2. Sufficient labor.
3. Bauxite, the basic raw material from which aluminum is made.

"Electric power in the South—and our industry requires tremendous quantities—comes from both hydroelectric and from steam generated sources in which both coal and natural gas are used principally as the fuel. It was originally the availability of hydroelectric power in North Carolina and in

Tennessee and still later in Alabama and Arkansas, which gave impetus to the aluminum industry's location in the South. As the industry has grown we have turned to natural gas as the fuel to produce power not only in Arkansas, but in Louisiana and Texas, and now your Governor tells me that you are bringing in gas on Mobile Bay. I firmly believe that the availability of low cost fuel in the United States will enable this country to meet the ever increasing need for aluminum.

"One of the greatest assets of the South has been its large reservoir of labor. We have found that the southern employee is quick to learn and conscientious in his work. The adequacy and fine spirit of labor in the South is a major contributing factor in the establishment, as well as expansion, of industries in Dixie.

"Domestic bauxite deposits are, although limited, located principally in Arkansas, with smaller sources in Georgia and Alabama. In this connection, it might surprise you to learn that our primary aluminum plant in northern Alabama in world War II purchased 200,000 tons of bauxite in southeast Alabama. With the German submarine menace in the Gulf—they sank 150-200 ore carriers—this source of supply kept our plant from closing down when its production was most needed for the war effort.

"Important as these southern deposits of bauxite are, the aluminum industry depends for a major portion of its requirements on imported ore from the Caribbean, islands of Jamaica and Haiti and the northern coast of South America—British and Dutch Guiana. Ore movements from these countries travel a relatively short water distance to our Gulf ports of Mobile, New Orleans and Corpus Christi. Thus, in terms of the raw material—bauxite—from domestic or foreign sources, the aluminum industry has its roots deeply in the South.

Regional Asset

"I think you will agree with me when I say that the aluminum industry in the South has had favorable influence on the entire economic situation here. It employs approximately 30,000 men, consumes millions of tons of materials, and uses a vast amount of transportation. Aluminum requires twelve tons of other materials in the production of one ton of metal. My company's transportation bill this year will approximate $35,000,000, with most of it going to

LATE NEWS HIGHLIGHTS

ATLANTA. Atomic energy and its implications for southern industry will be the subject of a meeting of business leaders, educators and government officials in Atlanta and Oak Ridge, April 17, 18 and 19, it has been announced by six sponsoring organizations. The southwide conference will be held under the auspices of the Atomic Industrial Forum, the Southern Association of Science and Industry, the Oak Ridge National Laboratory, the Oak Ridge Institute of Nuclear Studies, Southern Research Institute, and the First National Bank of Atlanta. A complete program will be carried in the March issue of the RECORD.

TALLAHASSEE. Governor LeRoy Collins is reported to be hot on the trail of two major new industries for Florida. He flew to Los Angeles recently to confer with industrialist Howard Hughes and returned with Del Webb, who handles contract matters for Hughes.

NEW YORK. Olin Mathieson Chemical Corporation has announced plans for the World's first fully-integrated aluminum plant. West Virginia will reap major dividends from the new $120 million unit to be located on the Ohio River near Cresap Bottom.

BALTIMORE. Carling Brewing Company of Cleveland is reported to be planning a new multi-million dollar brewery in the Baltimore area. The new unit is part of an expansion program which includes a $12 million plant now underway in Atlanta.

NEW YORK. Metal and Thermit Corporation here has purchased an 800 acre tract five miles west of Montpelier, Virginia, and will soon begin construction of a $750,000 plant for mining and processing titanium-bearing ore.

KNOXVILLE. The establishment of an Institute of Radiation Biology at the University of Tennessee has been announced by president C. E. Brehm. Dr. J. Gordon Carlson, a recognized leader in radiation biology, will direct the new unit.

SALISBURY, MD. The new unit of Wayne Pump Company, said to be the most modern plant in the pump industry, will be dedicated here February 10 by Maryland's Governor Theodore R. McKeldin and Wayne president W. H. Bateman. The plant occupies an 18 acre site.

BARTOW, FLA. A $4 million expansion program here has been announced by International Minerals and Chemical Corporation president Louis Ware. The addition will double the capacity of the Bonnie sulphuric acid facilities.

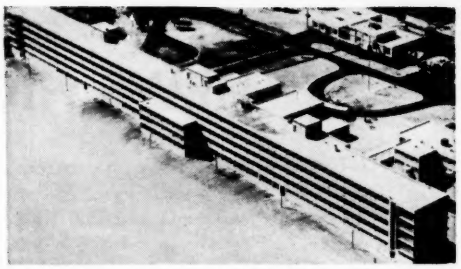
RICHMOND. DuPont has announced that studies are being made of the possibility of locating a large new nylon plant here. The company already has plants here for production of cellophane and rayon.

BIRMINGHAM. Alabama Power Company directors have approved a construction budget of more than $35 million for 1956, the sixth consecutive year that the company's expenditures have topped $25 million.

JACKSONVILLE. The Grower Container Corporation of California is said to be planning a new $1 million plant at Jacksonville. The firm manufactures paper boxes for agricultural and industrial uses.

Where Are You Building In The Southeast?...

CONNORS WILL PUT THE STEEL ON THE JOB WHEN YOU NEED IT



General view of new tuberculosis sanitorium in Tampa, Fla., for which Connors supplied concrete reinforcing bars. Arnold Construction Company of Palm Beach, Fla., was General Contractor.

CONNORS PRODUCTS:

Reinforcing Bars	Merchant Bars
Structural Shapes	Hot Rolled Strip
Studded T Fence Posts	Highway Sign Posts
Bulb Tees	Special Sections

Your building site in the Southeast is only a few short hours from Connors' centrally-located plant.

In addition, Connors has all the other essentials for better service, including ample bar inventory and accurate fabricating shop adjacent to rolling mills.

These factors, plus Connors' traditional follow-through from start to finish, are your assurance that your reinforcing steel will be on the job when you need it . . .

HKP — A DIVISION OF H. K. PORTER COMPANY INC

CONNORS STEEL DIVISION

H. K. PORTER COMPANY, INC.

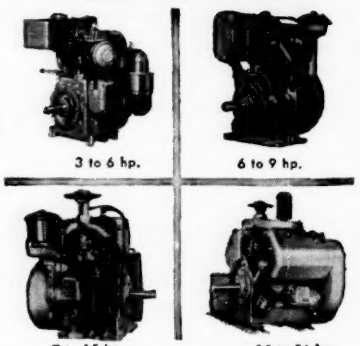
OF PITTSBURGH

P. O. BOX 2562 • BIRMINGHAM, ALA.

"WISCONSIN ENGINES"

offer the solution to your

POWER PROBLEM



Next to the basic machine itself, one of your major problems is to select and specify a power component that matches both the equipment and the work it is to do . . . *most advantageously*. Wisconsin Heavy-Duty Air-Cooled Engines merit your critical and serious consideration because:

• Every Wisconsin Engine is of HEAVY-DUTY design and construction in all details . . . with the inbuilt stamina to *take it* under all operating conditions, in any climate, at all temperatures from sub-zero to 140° F.

• The Wisconsin line provides the most complete power selectivity to fit both the machine and the job . . . 12 different models in 4-cycle single cylinder, 2- and 4-cylinder types in a power range from 3 to 36 hp.

Wisconsin Engineers will be glad to co-operate with you in adapting Wisconsin Air-Cooled Engines to your original equipment *most advantageously*. Tell us about your problem. "Spec" bulletins available on all Wisconsin Engines.

WISCONSIN MOTOR CORPORATION

World's Largest Builders of Heavy-Duty Air-Cooled Engines

MILWAUKEE 46, WISCONSIN

transportation companies in the southern states. I am told that our company is the best customer of three of our principal railroads.

"Strange as it may appear, out of the total twelve tons of raw materials and supplies required to produce one ton of aluminum, only four tons consist of bauxite, the remaining eight tons of materials consisting of cryolite, coal, coke, soda ash, lime, etc., all of which not only requires rail transportation, sometimes in train-load quantities, but in addition supports the industries supplying those materials. Most of our primary and a great deal of our fabricated aluminum moves principally by railroad and motor carriers and to some extent by water. Thus, it would seem that the whole economy of the South is very directly affected by its large aluminum industry—one of the more important segments of its industrial life."

Reynolds Reduction Unit To Bring Ford Foundry

LISTERHILL, ALA. Reynolds Metals Company has announced plans for a new aluminum reduction plant here to cost approximately $140 million.

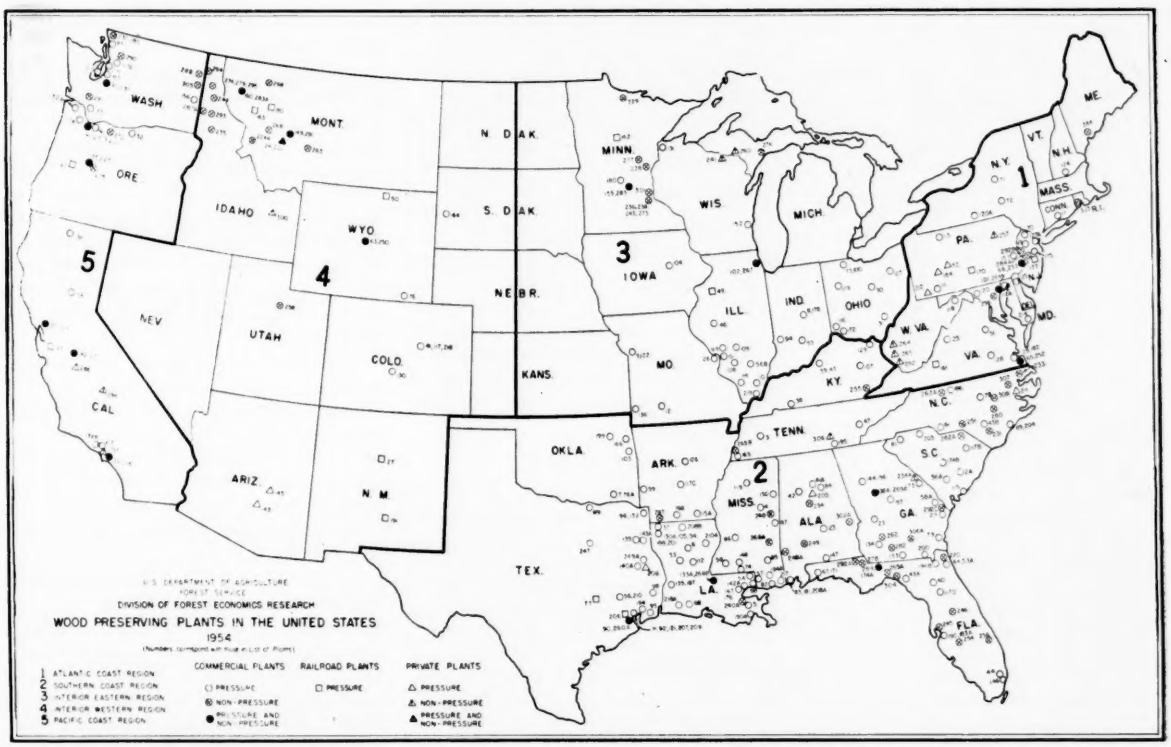
The plant results from signing of a contract with Ford Motor Company for delivery of more than 600 million pounds of aluminum during the next 10 years—said to be the biggest industrial order in the history of the aluminimum industry. Ford will build a new foundry here to receive aluminum in molten form direct from Reynolds.

Reynolds is already building a $25 million addition to its facilities here, and it is estimated that the new reduction plant will add 2,000 new workers to local payrolls.

The new unit here will be the seventh reduction plant in the Reynolds system and will increase the company's annual capacity by 200 million pounds.

Apparently the Listerhill addition cancels or at least postpones plans for a huge new Reynolds plant in Kentucky. During the past two years the company has bought more than 30,000 acres of mineral rights in Henderson county and has purchased several hundred acres of land for plant sites.

Another result of the announcement here is the intensification of the TVA power controversy. Observers who have noted recent TVA statements concerning a possible shortage of power in the area are wondering where power will be found to serve the Reynolds unit.



THE CONCENTRATION of the wood preserving industry in the South is indicated in this map compiled in 1954. Several important new units have since been located in the region.

SOUTH'S WOOD PRESERVING INDUSTRY ENTERING NEW ERA OF EXPANSION

ATLANTA. A recent report of the Southern Association of Science and Industry termed the pine tree "the South's greatest renewable resource."

Certainly, forest products loom large in the region's economy today and are destined to play a leading role in years to come.

Several of the South's top industries hinge on use of raw materials from the forest. The pulp and paper industry is uppermost in importance and its growth is well known.

Moreover, furniture manufacture is recognized as one of the South's top industries and is also expanding steadily. And almost every Southern community derives a part of its total income from a local sawmill or lumber yard.

But the size and scope of the South's wood preserving industry probably has not received as much recognition as it deserves. For today the chemical preservation of wood for a wide variety of applications is an important, growing activity throughout the region.

Industry dates from 1716

The wood preserving industry in the South has come a long way since the first wood preserving patent on record in this country was granted in 1716 by the Province of South Carolina to William Cook.

Among the early wood preserving plants in the South were facilities located in Galveston, New Orleans, Gulfport, Mobile, Savannah, Charleston, and Norfolk. These early plants were started in response to the need for railroad ties, piling, construction timbers and poles for the building of railways, port facilities, highways and electric power and telephone lines.

Even Noah was admonished by Jehovah to build his ark of cypress wood and coat it generously with pitch inside and out.

The number of treating plants has constantly grown until there are now 139 plants in the 13 southern states stretching from Virginia to Texas. Preservatively treated wood is readily available not only for use within these 13 southern states, but for shipment to other parts of our country and overseas.

More than half of all the treated timber in the United States is produced and treated by the southern wood preserving industry. In 1953 treated timber production in the South amounted to 149 million cu. ft. or 51 per cent of the total for this country. The southern industry provides employment for about 8,000 persons and produces a total revenue of $170 million annually for the region. The expenditure for raw materials, mostly timber products and wood preserving chemicals, is estimated to be $110 million annually.

Basic research in southern plants during the last 15 years has developed several new and efficient procedures for faster seasoning and improved treatment; and machines that have taken over old hand methods of woodworking and handling materials. Conventional air seasoning methods requiring up to six months for southern pine poles and up to 14 months for oak ties soon may be part of the past. Thousands of railway ties now in service have been artificially seasoned and pressure treated with an interval of only a few days from stump to track.

Moreover, railway engineers expect that the 30 to 35-year average life of crossties in track will be extended several years by these processes. Applied to poles, piles and other larger timbers, these new processes eliminate the need for large seasoning yards and reduce plant inventories. Incising machines have been developed for processing green crossties to reduce checking and splitting of hardwoods. Longer service life and the use of some species heretofore little used for crossties point up commendable conservation practice.

The shapely appearance of today's pressure treated southern pine poles is achieved by ingenious electrically driven pole peeling machines. These are so versatile that their operators can trim, smooth and taper the poles to almost any specification requirements. Machine tailoring plus the variety of pressure treatments available assure the adaptability and acceptability of southern pine poles in any neighborhood. Relatively low initial costs and long-span service life mean substantially lower annual costs compared to the man-made poles of competitive materials.

Unique Applications

For many end uses there are no substitutes for wood—railroad crossties are the best example. For other uses it is the most economical material; e.g. foundation piles, marine pilings, telephone and power line poles. But for many other uses substitute materials are used because of the lack of durability of natural wood.

Modern transportation facilities have aided in spreading the agencies that destroy wood. Insects and decay organisms, once confined by mountains, canyons, and deserts, now travel "first class" throughout the country. The most dramatic example is the termite, which 50 years ago was confined to wooded sections of the Gulf States and the warmer areas along the Atlantic and Pacific Coasts. Now termites are found in every state.

Modern homes provide ideal living conditions for colonies which feed on the untreated lumber in these buildings. Wood preservation is a growing necessity for structural lumber near the ground or subject to weather. Pressure treatment assures permanent protection of wood against decay and insect attack.

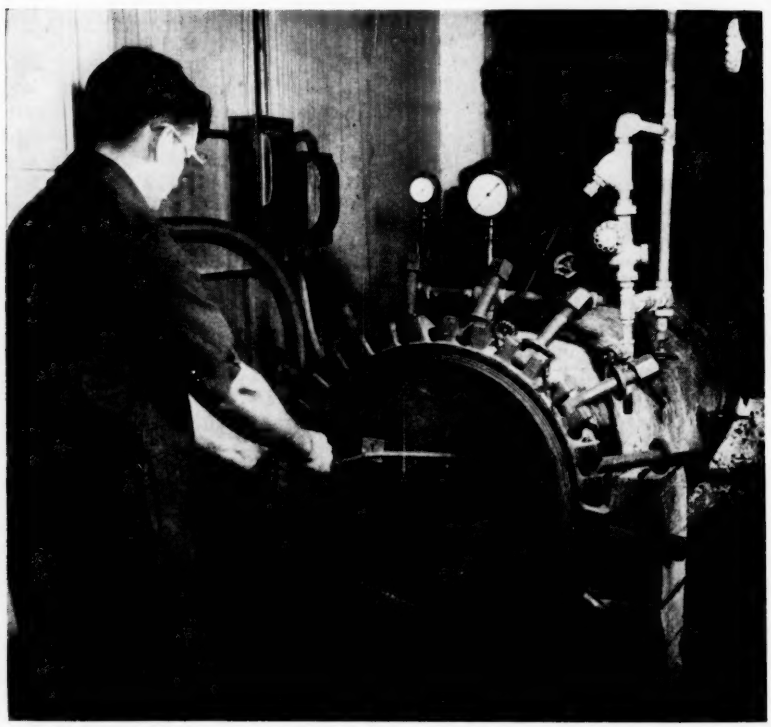
It has increased the average service life of timber products from 5½ to more than 35 years. This results in saving timber resources, but most important are the savings in construction and maintenance costs. The best example of this saving is found in the carefully maintained statistics of our railways:

In 1898 replacements of crossties in track averaged 304 per mile per year, or a total of more than 100 million annually. With the ever growing use of pressure treatment, crosstie installations dropped to 264 ties per mile in 1911, to 117 in 1931, and the five-year average renewals in 1953 reached a low of 90 ties per mile per year. Today's average service life of ties is more than 33 years compared to 10 years in 1900.

To take an example from waterfront structures, most of the pressure creosoted piling installed in the Port of New Orleans prior to 1910 is still in place and in serviceable condition, indicating a service life of more than 44 years, even outliving the efficient life of some structures.

One of the most striking trends in the demand for pressure treated wood is seen in the sharp rise in farm improvements. The production of treated fence posts, practically negligible as late as the thirties, amounted to more than 16 million posts in the South for the year 1953.

Rising demand for strong, long-lasting fence posts has been occasioned by the development of the cattle industry in the South as well as the cattle closure laws in effect in most of the



NEW TECHNIQUES in wood preserving are being studied in this small pilot plant operated by James Lacey at Southern Research Institute in Birmingham. Chemical manufacturers are vitally concerned because wood preserving is an important market.

There's a Bolted Steel Frame in This New Building in Florida

Here's a structure that is winning much favorable comment. It's the home office building of Independent Life and Accident Insurance Company, Jacksonville. It is 18 stories high, and L-shaped, and is topped by an attractive illuminated pylon of stainless steel.

The building, covering 16,800 sq ft of ground area, is faced with Indiana limestone, trimmed with glazed brick. Emerald-pearl Swedish granite is used for the first-floor facing. Mechanical equipment is grouped on the upper floors, an innovation in the Southeast for buildings of this type. The structural members making up the 1500-ton steel framework are bolted together with thousands of Bethlehem High-Strength Bolts.

Bethlehem High-Strength Bolts have come to be widely used in joining structural members. They provide permanently tight joints and make possible a saving in erection time. They are particularly desirable for construction in hospital and school zones, as the pneumatic wrench used in tightening the nuts is less noisy than a riveting gun.

Bethlehem High-Strength Bolts are made of carbon steel, and heat-treated by quenching and tempering, meeting every requirement of ASTM Specification A-325.

Save time by using Bethlehem High-Strength Bolts in your next construction job. The nearest Bethlehem sales office will be pleased to supply full information. Or drop a line to us at Bethlehem, Pa.

Bethlehem High-Strength Bolts join structural members of 1500-ton framework for Independent Life and Accident Insurance Company building, Jacksonville. Steel fabrication and erection by Bethlehem. *Architects:* Kemp, Bunch & Jackson; *General Contractors:* S. S. Jacobs Company; *Consulting Structural Engineer:* J. L. McCollough.

BETHLEHEM STEEL COMPANY, BETHLEHEM, PA.

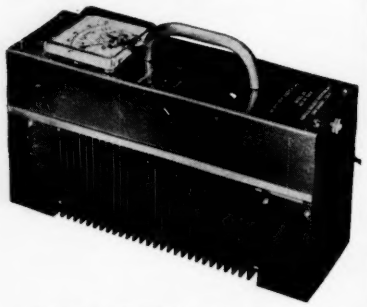
On the Pacific Coast Bethlehem products are sold by Bethlehem Pacific Coast Steel Corporation. *Export Distributor:* Bethlehem Steel Export Corporation

BETHLEHEM STEEL

BETHLEHEM STEEL

mercury vapor detector

tells instantly when a hazard exists in plant or lab atmospheres



Meter is calibrated in mercury concentrations for quick indication. The toxic limit is a full-scale reading on the high sensitivity scale of Model 23, illustrated. Wt.: 7 lbs.; size 13" x 8½" x 4½". Three models for varying ranges.

Write for bibliography on the mercury vapor hazard, and literature on Kruger Mercury Vapor Meters.

HAROLD K KRUGER INSTRUMENTS

BOX 164 • SAN GABRIEL, CALIF.

AGITATED?

Then Try **KONTES PRECISION STIRRERS!**

Why get all stirred up using makeshift or inferior agitators? Kontes precision ground shafts and diamond-honed bearings have proved best by test.

Lubricant reservoirs and a two-step reduction in shaft diameter are recent improvements. All parts are interchangeable. Teflon° stirrer blades, stirrer motors and other accessories are now listed in our new literature.

Write for your free copy of Bulletin PS-1 today.

REG. T.M.E.I. DUPONT CO.

KONTES GLASS COMPANY VINELAND, NEW JERSEY

southern states. Another recent development in farm construction is the pole frame type of farm building.

Pressure treated poles are used to support the framework of the structure. Being set in the ground, the poles eliminate high-cost foundations and reduce the need for much structural bracing, thus lowering material and erection costs. Poultry houses, machinery sheds, cattle feeding barns, corn cribs, bunker silos and car ports are some of the more popular structures of this type.

Although a few buildings were erected with cypress poles before the lumber industry moved South, the modern pressure treated pole barn is relatively new to the area. For instance, this type of construction was introduced in a county in Georgia in the late 1940's. Its popularity may be judged from the fact that nearly all the farm service buildings erected in that county during the last four years are of the pole frame type.

The trend in our national life is toward a smaller farm population and a greater production of farm products to feed a growing nation. Farmers and ranchers realize that the need for more efficient operation extends beyond the use of modern implements and equipment to modern buildings properly designed to eliminate a large proportion of the labor entailed in handling crops and feeding and caring for stock.

Another new development is the growing demand for more durable material for housing. In 1953 the southern industry produced 211 million board feet of pressure treated lumber, a seven-fold increase over the figure 30 years ago. The greater proportion of this lumber is still being used in heavy and industrial construction, but the amount, and proportion, used for housing is increasing.

Recognizing that three-fifths of the annual construction lumber production is used for housing and that but a fraction of one per cent of this amount is presently being preservatively treated, the potential demand for pressure treated lumber for housing construction becomes readily apparent. With improvements in the type of treated products made available, and the increasing need for more durable wood for housing, opportunity for substantial expansion exists.

Architectural trends and climatic conditions in the South make necessary the use of proper structural preservation in home construction. One-story houses built without basements put more wood in close proximity with the ground and in contact with masonry foundations of slab concrete floors. Architects are recognizing the danger of early deterioration from decay and termite infestation, and are more and more specifying the use of pressure treated lumber.

In these days of high prices, it is encouraging to know that the cost of wood preservation has not risen in proportion to that of other construction items. The additional cost of wood preservation for those parts of a house in greatest danger of deterioration is about one per cent of all construction costs. This small increase in the initial cost protects the life line of a home, its foundation, so that the home can outlive the 20 or 30-year mortgage settled upon it.

The great majority of southern pressure wood preserving plants provide their customers and the potential users of treated timber products with reliable consultation service through the American Wood Preservers Institute. This is a national educational organization which maintains a corps of nine trained engineers at strategic locations throughout the United States. District engineers with headquarters in Atlanta, Bossier City, La., and Washington, D. C., are available at all times to help with practical suggestions regarding standard preservatives and treating methods designed to insure the delivery and proper installation of treated timber products for all specific purposes.

Railroads long ago realized the value of preservation for permanence. Utility and telephone companies are experiencing the same history with treated poles. Farmers are building fences and buildings out of pressure treated wood to last more than a generation.

The fast rising trend toward the use of pressure treated wood in housing construction, especially in southern states where the need is greatest, indicates that the wood preserving industry will accelerate its growth, contributing to the expanding economy of the South.

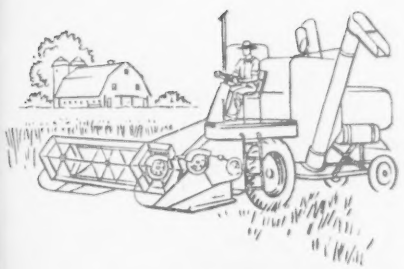
What Does Future Hold?

Industry leaders see rapid expansion of wood preserving activities as a result of an intensive sales and educational program. A major area of expansion will come in the field of home construction, where more new units

FARM IMPLEMENTS IN THE MAKING AT

Newport Steel

Modern furnaces, rolling mills and other new facilities pour forth tons of steel to the most exacting specifications of individual implement manufacturers and others who prefer the quality, service and flexibility of the Newport operation. Here is an organization with 70 years background in fine steelmaking, personnel old in experience and young in outlook, new efficiency and greater accuracy in production control. Located right in the heart of America's greatest industrial growth, Newport is an exceptional source for the many important steel products listed here.



PRODUCTS OF NEWPORT STEEL

- Cold-Rolled Sheets
- Hot-Rolled Steel in Coil
- Hot-Rolled Pickled Steel in Coil
- Hot-Rolled Sheets
- Hot-Rolled Pickled Sheets
- Galvanized Sheets
- Galvannealed Sheets
- Colorbond Sheets
- Electrical Sheets
- Alloy Sheets and Plates
- Electric Weld Line Pipe
- Roofing and Siding
- Eave Trough and Conductor Pipe
- Culverts

ECONOMICAL WATERAIL-TRUCK DELIVERY

Newport Steel is ideally situated on the Mississippi-Ohio River system and the great Cincinnati rail-truck hub. New barge facilities, 7 major railroads, 143 motor carriers enable Newport to give economical, dependable delivery to the entire area of the Middle West and South.

Newport Steel

CORPORATION

NEWPORT, KENTUCKY

YOUR CONFIDENCE IS JUSTIFIED WHERE THIS FLAG FLIES

A SUBSIDIARY OF MERRITT-CHAPMAN & SCOTT CORPORATION

Missing A Bet?

Your firm is overlooking an opportunity if you are not using MANUFACTURERS RECORD as an advertising medium to reach expanding Southern markets. For the RECORD is tops in the nation's fastest growing industrial area. Check these facts:

1. THE RECORD IS FIRST: Established in 1882, the RECORD is literally the South's first business magazine. In fact, few business media anywhere can equal our 73 years of continuous publication. Having operated through three major wars and several serious depressions, we offer unmatched stability and continuity of interest. Some subscribers have received the RECORD for 40 years!

2. THE RECORD IS OFFICIAL! Only recently the RECORD was adopted as the official publication of the Southern Association of Science and Industry, the South's foremost regional development agency. Supported by the South's leading business firms, SASI serves as the official advisory group to the Southern Governor's Conference in the fields of science and industry. The proceedings of many important activities are carried exclusively by the RECORD.

3. THE RECORD IS DYNAMIC! The RECORD does not follow the progress of the South, but leads it! The common denominator among RECORD readers is a keen interest in the industrial development of the region. Heavy emphasis on technology assures that the RECORD, first in the South's history, will also be first in the South's future.

Let us send you facts about opportunities for your firm in the booming South:

H. G. HAND, JR., Advertising Director
CONWAY PUBLICATIONS
NORTH ATLANTA 19, GA.

Send RECORD advertising rates to:

NAME .....

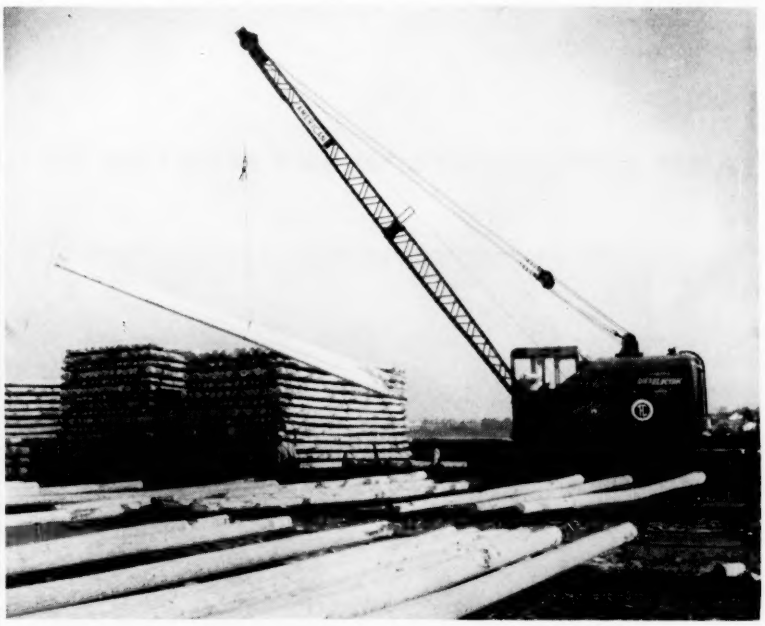
POSITION .....

ADDRESS .....

.....

.....

WOOD PRESERVING



SOUTHERN WOOD preserving plants are fast turning to modern materials handling equipment. The basic raw material is the Southern pine shown here being stacked for seasoning.

will specify treated lumber for foundations and floors.

James Wallace, Sales Manager for Frost Forest Products, Shreveport, estimates that the home building market can absorb some 2.5 billion board feet of treated lumber per year at present construction levels. And this figure, he adds, is based only on non-farm housing needs.

Assuming an F.O.B. price of treated lumber at $125 per thousand board feet, this gives a market potential of nearly $300 million per year. And Southern producers enjoy a significant advantage in serving this need.

Moreover, this development will mean more money not only for treatment plants but for a variety of suppliers, particularly chemical manufacturers. The number of chemical firms making wood preservatives, disinfectants, fungicides, and related products has increased rapidly in the South in recent years.

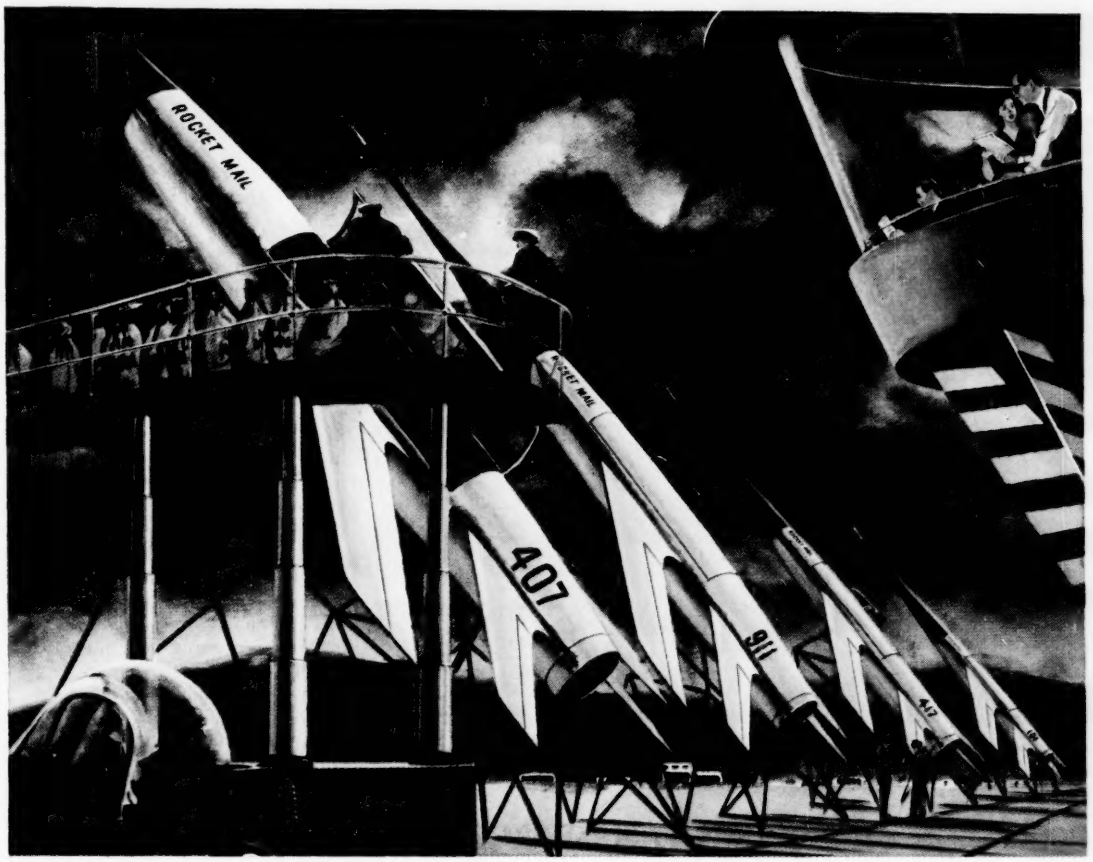
Another opportunity for these and other wood-using industries lies in more effective control of waste. It was estimated recently that the sawmills and other wood-using plants of North Carolina alone produce 180 million cubic feet of sawdust, shavings, and other residue annually—enough to supply all of the pulp mills in North Carolina and Virginia combined.

At present, most of this waste is left to rot or burned. A major bar to its profitable use is the fact that it is scattered among some 20,000 locations throughout the state.

To promote utilization of this raw material, the N. C. Department of Conservation and Development has issued an illustrated booklet describing the total amount, the available amount, and where it is. The report is by Walton R. Smith, George Englerth, and Michael Taras, utilization staff members of the Southeastern Forest Experiment Station, Forest Service, USDA. As Governor Hodges of North Carolina says in the foreword, "Less than a third of a tree finds its way into the final product."

The survey is based on extensive field contacts and mail canvasses to determine not only the gross amount of wood waste but the quantity, present disposition, possible uses, systems for handling, and availability by different locations throughout the State.

The booklet is filled with facts, figures and interpretations, and is the most complete roundup of residue information so far issued by any southern state. Free copies are available from U. S. Forest Service, Box 2570, Asheville, N. C., or from the N. C. Department of Conservation and Development, Raleigh, N. C.



RADAR controlled and guided, high speed rockets streaking through the stratosphere may deliver New York mail to San Francisco in less than an hour!

100 years from now...

WE MAY SEND MAIL BY ROCKET!

A century from now a wonderful, exciting and different world. But there will be one familiar note. The cast iron pipe laid today will still be carrying water and gas to the homes and industries of tomorrow.

In over 60 American cities, these dependable cast iron water and gas mains, laid more than a century ago, are still serving efficiently. And modernized cast iron pipe, centrifugally cast, is even stronger, tougher, more durable.

U. S. Pipe is proud to be one of the leaders in a forward-looking industry whose service to the world is measured in centuries.

U.S. PIPE

CAST IRON

U. S. PIPE AND FOUNDRY COMPANY, General Office: Birmingham 2, Alabama

A WHOLLY INTEGRATED PRODUCER FROM MINES AND BLAST FURNACES TO FINISHED PIPE.

A SOLAR-POWERED experimental radio transmitter capable of spanning several miles was demonstrated at the recent international meeting in Phoenix. (Stanford Research Institute photo).

PROGRESS IN SOLAR ENERGY RESEARCH OPENS NEW OPPORTUNITIES FOR SOUTH

ATLANTA. Solar energy utilization is closer than many people think.

That fact is apparent in the examination of recent research reports, including a paper presented here during December at the annual meeting of the American Association for the Advancement of Science. The speaker was Gerald L. Pearson, of Bell Telephone Laboratories.

And Pearson told not of theoretical laboratory devices but of a practical test of a solar battery used in field studies near Americus, Georgia, in recent months. Admittedly, the test device is crude and having little application, but the significant fact is that a solar-energy device *is now in operation in the South.*

In the Americus application, Pearson said, "a transistorized telephone repeater carrying a number of voice channels, receives its entire operating power from the sun." And although further engineering development will be required before the solar battery can compete economically with more conventional sources of power, Pearson concludes that "the scientific problems of converting solar energy directly into useful amounts of electrical power have been solved."

Now this is a fact that should not go unnoticed by Southern businessmen. For the South daily receives almost twice as much solar energy as do the Northern sections of the nation. Any successful application of solar energy in industry would naturally accrue to the advantage of the region.

That other regions appreciate the possible importance of work in this field is seen in the impressive attendance at the recent international solar energy conference held in Phoenix. More than 1000 scientists and businessmen from throughout the world came for this program originated by Stanford Research Institute.

Southwest Leaders Active

Business leaders of the Southwest are so enthusiastic about solar energy that they have set up a permanent organization, the Association for Applied Solar Energy, and are making plans for a permanent laboratory in Arizona.

Commenting on the economics of solar energy use, Dr. Jesse Hobson, SRI Director, points out that while initial investment costs may be high, operating costs tend to be very low. "Since little or no purchased energy is consumed, the operating cost for solar equipment can be negligible, or at least considerably lower than for a fuel-burning or power-using device," he explains.

Hobson cotinues:

"A solar pump, like the impressive unit brought here from Italy, involves higher initial investment than a gasoline or electric pump. A solar water heater is also more expensive than a conventional heater, but once installed, the operating cost is low. If it lasts long enough, a solar pump or water heater will often be more economical than a fuel pump or a conventional water heater, even using currently available designs.

"A few examples show clearly the differences in initial investment between solar installations and conventional energy devices. The initial cost of a solar hot-water heater for an average-sized home in some parts of the United States is around $300; conventional hot-water heaters for the same purpose can be obtained for from $100 to $125. A small solar water pump using a flat-plate collector can be installed for perhaps $1,000 per horsepower; an ordinary gasoline pump costs about $50 to $100 per horsepower. A small solar cooker is now available in India for about $16, but it must compete with small crude burners, many of which can be purchased or built for less than one dollar.

"The same investment characteristic is familiar to us in hydro-electric plants. A water-power plant costs more to build than a steam plant with the same capacity—sometimes twice as much. Its relative economic situation will usually depend, among other things, on whether the added fixed charges due to the higher initial investment are offset by the cost of the fuel used in a steam plant. The economics of hydraulic energy and solar energy alike will therefore be affected appreciably by such factors as the cost of money, taxes, the life of the equipment, and prices for competing energy.

"In speaking of economic characteristics, hydraulic and solar energy part

ABOUT
SITE SELECTION

In choosing a plant site, two things are essential—

"KNOW HOW"
AND
"KNOW WHERE"

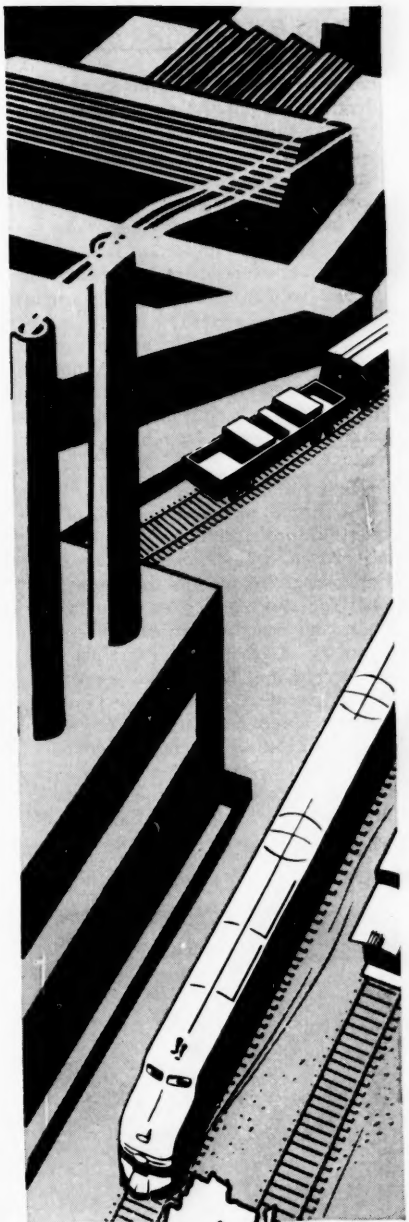
The Industrial Department of the Seaboard Air Line Railroad has both of these—born of long experience in making studies and compiling surveys on hundreds of localities.

Somewhere in the Seaboard Southeast there is a community which will fulfill your ideals as a plant location. Why not let us help you find it?

Our experienced plant location service is available to industrial prospects without cost or obligation.

Address:

Warren T. White
Assistant Vice President
Seaboard Air Line Railroad Company
Norfolk 10, Virginia



GROW with the GROWING SOUTHEAST!

SEABOARD AIR LINE RAILROAD

THROUGH THE HEART OF THE SOUTH

company at the points of energy production and energy use. For solar energy, the point of production and the point of use can be one and the same. In most instances this means we can do without transmitting and distributing facilities, eliminating their costs entirely. This is an important factor since fuel prices everywhere are greatly affected by the distance between point of use. While electricity at the power house may cost on the average around six mills per kilowatt hour at a modern steam power plant in this country, by the time it has been transformed, transmitted, transformed again to a lower voltage, and distributed, its selling cost may be three or four times this figure.

"A broad approach is out of the question for determining the economics of solar-energy installations. Construction costs, amounts and distribution of solar radiation, prices for conventional fuels, and many other economic factors vary so greatly from one place to another in a given nation, especially in the so-called less-developed areas, that economic comparisons on solar energy utilization can be offered only on the basis of specific conditions in particular localities. No other approach can take full account of all the controlling economic factors."

Second of a Series:

YOUNTS KEEPS EXPANDING PIPELINE EXPERTS DOOMED AS UNECONOMICAL

ATLANTA. Early in 1940, Charles R. Younts, an oil marketing executive for the Jersey Division of the Esso Standard Oil Company, was hastily called to New York City for consultation on matters that concerned, of all things, a pipe line. Because of his wide knowledge of the South and its marketing areas, the location of this proposed transportation system made his presence at these preliminary meetings quite in order. As to the operation of a pipe line system, however, Charlie Younts knew only of the pipe lines that connect storage tanks to loading racks at marketing bulk plants.

This proposed pipe line system was to be a products line, little known to the petroleum industry and one which pumps through its lines refined petroleum products of many different types. The location of the new line was finally set, interested oil companies sold on the joint venture, and Younts selected for the job of president. This was in July of 1940.

To Charlie Younts a lot of water has gone over the dam since the day he was asked to head Plantation Pipe Line Company. He can remember incorporating the Company, preparing a lengthy prospectus for the public sale of stock only to have three major oil companies tell him that they would take it all, borrowing taxi-cab fare from the hotel doorman with a ten million dollar bank check in his brief case, and moving to Atlanta.

This move to Atlanta also delighted Mrs. Younts, the former Willie Antoinette Camp of Franklin, Virginia, for it gave her and her husband their first so-called permanent home since her marriage to Charlie in March of 1930. She first remembers her husband as Assistant Division Manager of Jersey Standard's South Carolina Division. Next, in 1931, he was made Assistant Division Manager of the Virginia Division.

In 1934, the Yountses were transferred from the South to the colder climate of Rochester, New York where he became Division Manager of the Colonial Beacon Oil Company, a Jersey subsidiary. Two years later, upon the consolidation of the Rochester and New York divisions of the Colonial Beacon Company, the Yountses moved to New York City where he headed sales for the entire division. Before the year was ended—another move—he became Assistant Division Manager of the Jersey Division of the Esso Standard Oil Company, the position he held just before being introduced to Plantation.

Before 1930—even before Younts' South Carolina tour of service with Jersey Standard—it was the North Carolina Division, learning the marketing end of the petroleum business from office boy in 1912 through the various product sale departments within the Division. Except for a brief stay with the Army's Artillery Corps in 1917 and an even shorter visit with an aluminum company, Younts' service with the Standard Oil Company (N.J.) has been uninterrupted.

Operating a pipe line, especially a

ANOTHER STANFORD EXHIBIT was this Novoid engine which produces rapid pulsating mechanical energy directly from a solar collector. The engine has only one moving part—a column of fluid, the heated end of which alternately explodes into high-pressure steam, then condenses again, producing a hydraulic thrust.

refined products line with an unheard of diameter of 12 inches, was a feat that many engineers, back in 1941, thought could not be done. These forecasters of doom and those who believed the pipe line system would work placed Charlie Younts, a marketing man, in a very difficult position when decisions had to be made during the construction of the 1261-mile line from August of 1941 to January of 1942.

Younts can remember—just before the completion of the system and after some twenty million dollars had been placed into a pipe line, pumping stations, and delivery terminals—when one top engineer walked into his office and said, "You know something, Charlie? This pipe line you are building isn't going to work."

After the system began operations—far beyond expectations—Younts, now the pipeliner, saw capacity of the line grow from 60,000 barrels per day to 100,000 barrels per day. This was during the war years, and, of course, as thought many marketing officials, capacity of the line would certainly take a nose dive after the war. This thinking was directly opposed to Charlie Younts', and from 1946 to 1950, Younts fought an uphill battle in selling the future of the South. The battle ended with a fifty-five million dollar expansion that brought Plantation's capacity to 225,000 barrels per day in 1951 and to 245,000 barrels per day in 1955.

Younts, born in Pineville, North Carolina in the year 1895, is scheduled for retirement in July of 1960. These remaining years with Plantation, however, will be no different from those of the past with more expansions of his pipe line system right around the corner. In fact, Charlie Younts, this very day, is planning a 23½ million dollar project for 1956 with the addition of still another 18-inch line and an end-of-the-year capacity of approximately 304,000 barrels per day.

If you ask Younts what he plans to do after retirement, he will tell you that he is going to open an office and work full time for worthwhile charitable organizations, an occupation that has already consumed much of his time both on and off the regular job of running Plantation.

WHO'S WHO lists the many fraternal, civic, and social organizations

25210T—GYRATHERM Magnetic Stirrer and Hotplate complete with stirring bar and 6-foot line cord with safety plug. For 115 volts AC or DC.....$115

from Will CORPORATION

GYRATHERM*

MAGNETIC STIRRER and HOT PLATE

- Simultaneous or independent heating and stirring operations. Two readily accessible knobs govern stirring speed and heat.
- Permanent Alnico magnet. Pulley-belt drive and control rheostat permit wide range of uniform, reproducible stirring rates.
- Stepless uniform temperature control to 700° F. Special fast-acting heater element.
- Full 8" hot plate aluminum casting. Replaceable ring type 750 watt heater.
- Continuous duty 1/15 hp motor. Fan cooled.

NOW AVAILABLE—PROMPT DELIVERY FROM STOCK

Complete Specification Sheet on Request

*TRADE MARK

Rescue those "Drowned" Stirring Bars—Magnetically!

You can stop emptying containers to retrieve stirring bars if you have a new Will Retriever. Just dunk the Retriever in the container. A permanent magnet sealed in the tip grabs the bar and out she comes!

This handy Retriever is 13 inches long, 5/16 inches in diameter and made of chemically resistant polyethylene tubing.

It's flexible too! Use it with containers of any size or shape. Better order a couple along with your new GYRATHERM.

2524OT—RETRIEVER for Magnetic Stirring Bars.....$2.00

Will CORPORATION of GA.

Specialists in WILL *Scientific Supply*

890 NEW CHATTAHOOCHEE AVE., NW, ATLANTA 1, GA. Telephone ATwood 3872

which interest Younts. These are numerous but all must have a worthwhile purpose and be going in a direction that will warrant his time and energy. His Rotary Club recognized this in 1950 when he received its Armin Maier Award "in recognition of his unselfish service to this city—his ideals and performance in good citizenship—and his exemplary fidelity to the principles and objectives of Rotary International."

Younts has long been a staunch member of the SASI and served one term as regional vice president. He is currently a member of the association's Board of Trustees.

On Sunday, Younts attends the Associate Reformed Presbyterian Church at Doraville, Georgia where he is a Member of Session. After church, occasionally, he will get into his car and drive a short distance to Plantation's round-the-clock operating main line pumping station at Doraville for a visit with the employees on duty.

Younts is proud that he heads a company that has expanded with the South, that it is a company that endeavors to develop good and progressive citizens, and that it is the employees who have created so much of its success. He has a right to say, "Plantation's biggest asset is its employees."

PLANTATION PIPE LINE'S Charles Younts (right) is shown with Georgia's former governor Herman Talmadge in ceremonies dedicating an addition to the line. Under Younts' leadership Plantation has developed a strong research program, including a company laboratory at Bremen, Georgia.

LSU's West Develops New Test For Gold

BATON ROUGE. A new rapid spot test that identifies the faintest traces of gold in five minutes is the result of a 15-month search by a Louisiana State University professor.

The new spot test is expected to benefit chemical researchers who suspect traces of gold in a compound. The only equipment needed: two test tubes, a medicine dropper, the reagent, acid, and butyl alcohol.

Dr. Philip W. West, Boyd Professor of chemistry at LSU and an international authority on spot test techniques, developed the new method after a 15-month search for a proper reagent, a chemical that detects other substances.

Naphthylamine, used in dye manufacture, is the reagent in Dr. West's process. The new technique may find an application to medicine in testing the blood of patients troubled by arthritis. Small amounts of gold are sometimes used to relieve the sufferings of arthritis victims.

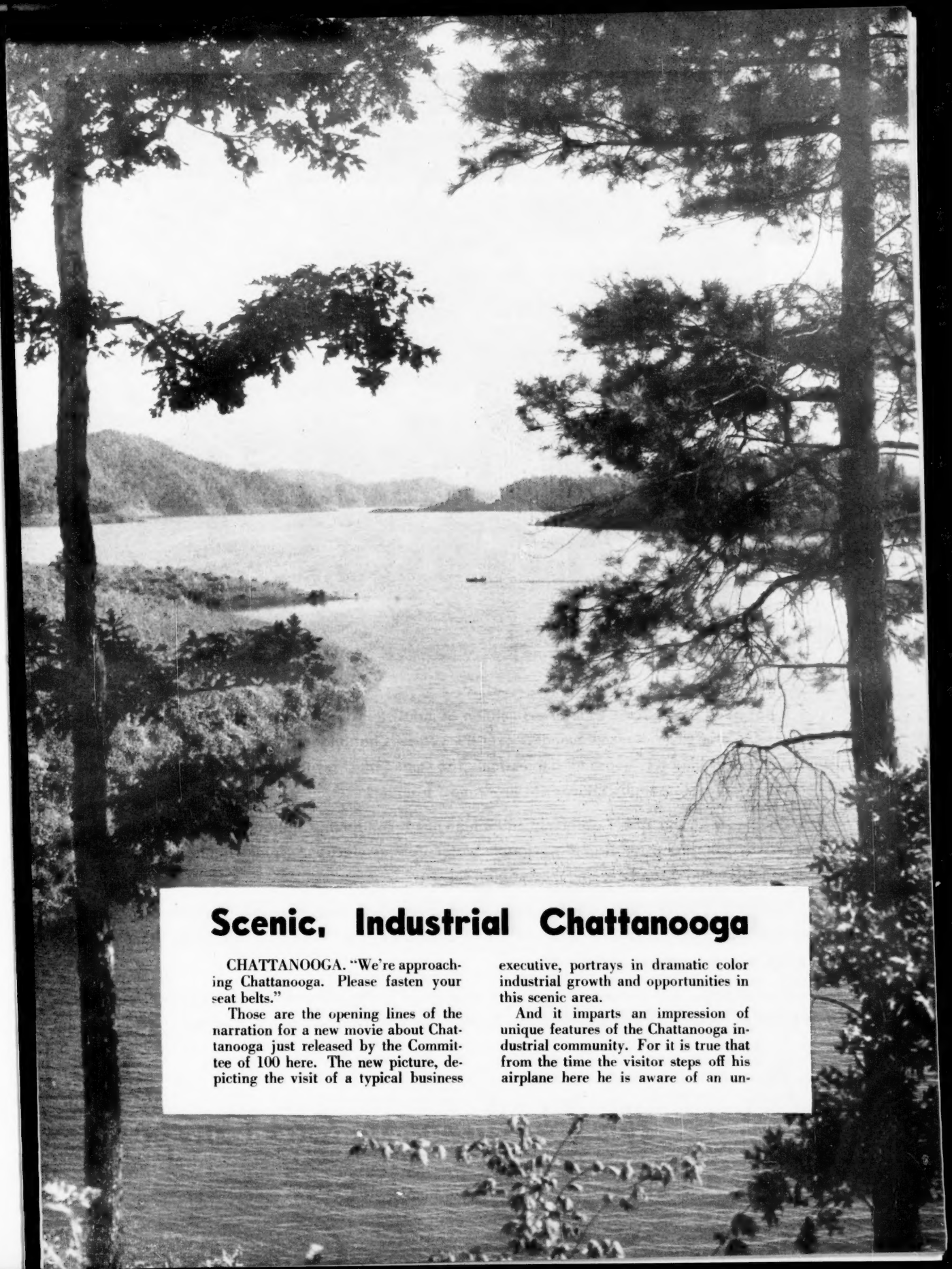
Dr. West's test works in the following manner:

A solution to be tested is saturated with potassium chloride, a chemical closely related to common table salt. The resulting solution is treated with butyl alcohol, and a drop of the alcoholic extract is placed on a white spot plate. A drop of naphthylamine is added, and the appearance of a violet color three minutes later indicates the presence of gold.

The amounts of gold detected by Dr. West's technique are invisible to the naked eye. They can be as small as one microgram, or one-thousandth of a millionth of an ounce.

Widely-known in his profession as a "master of spot tests," Dr. West last year received the Southwest Award of the American Chemical Society for his outstanding record as a teacher, author, lecturer, and research scientist. Earlier, he developed a spot test technique for detection of minute amounts of copper. He has written more than 100 papers and articles on analytical chemistry.

Spot tests provide a simple and efficient means for detecting invisible amounts of various metals and other substances, and are widely used in chemistry, agriculture, crime detection, and other fields. Dr. West's work was supported by a grant from the Ordnance Corps of the U. S. Army.

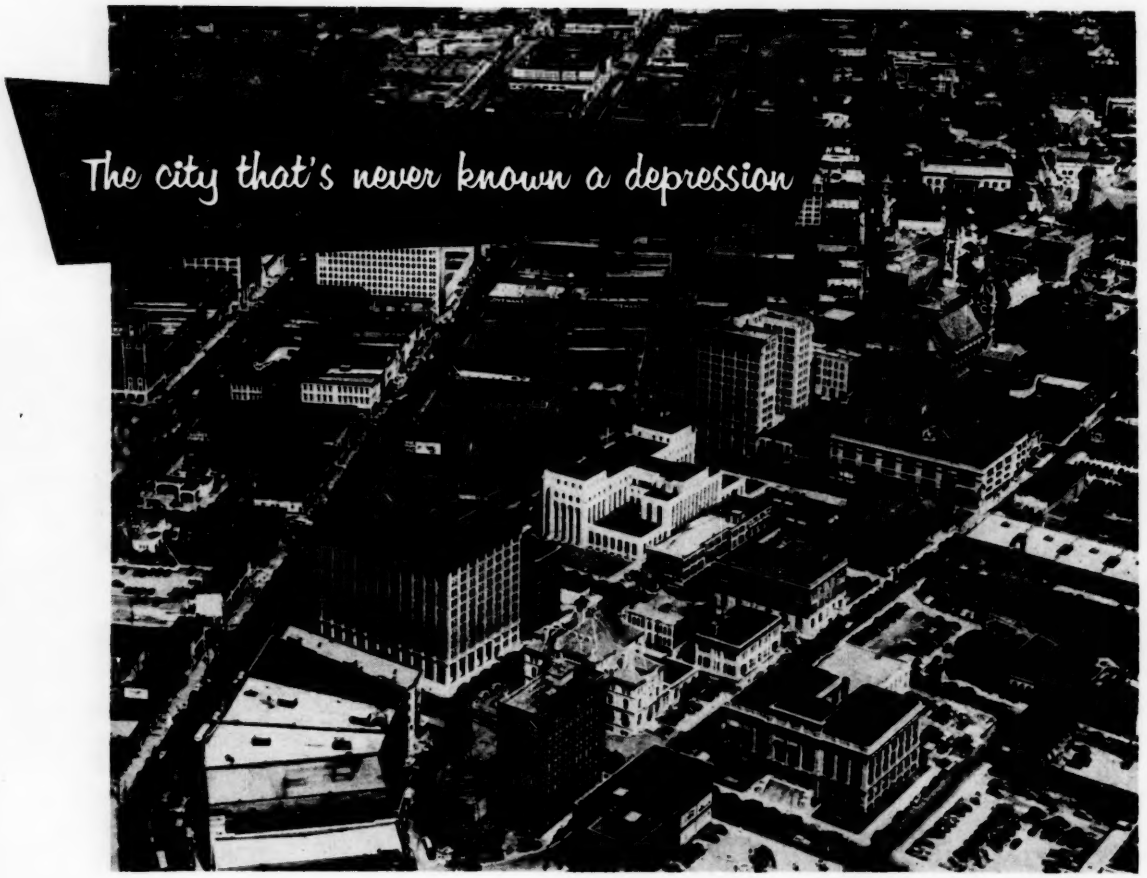


Scenic, Industrial Chattanooga

CHATTANOOGA. "We're approaching Chattanooga. Please fasten your seat belts."

Those are the opening lines of the narration for a new movie about Chattanooga just released by the Committee of 100 here. The new picture, depicting the visit of a typical business executive, portrays in dramatic color industrial growth and opportunities in this scenic area.

And it imparts an impression of unique features of the Chattanooga industrial community. For it is true that from the time the visitor steps off his airplane here he is aware of an un-



It has been the extreme wide diversification of industry in Chattanooga that has made possible the city's stable and well balanced economy over the years. Chattanooga has never suffered a serious sustained or even temporary seasonal depression. The same industries that helped to create this desirable condition are just naturally the ones to profit most from it.

Coupled with this stable economic and employment condition, Chattanooga offers all industry easy access by rail, highway, air and navigable water, a fine selection of plant sights, raw materials and skilled labor, and also, an abundance of Natural Gas.

Testifying to these facts are the many new industries which have located in Chattanooga during the past few years, such as Quaker Oats, Wheland Ordinance, Central Soya and Cramet Titanium, to name a few as representative of the variety.

Chattanooga, and its business-managed natural gas utility welcome your inspection of our city and its facilities. As the "scenic center of the South", it is a wonderful place to live too!

The Chattanooga Gas Company

usual city.

First, the visitor is impressed with the physical characteristics of Chattanooga. The city lies in a valley alongside the Tennessee River and is surrounded by mountains which rise more than 2,000 feet above sea level. At night the entire area becomes a diamond-studded bowl.

Chattanooga deserves its title "The Scenic Center of the South."

The second impression, which comes only after a thorough study, is that Chattanooga enjoys a highly diversified manufacturing activity with deep roots in long-established industries. Moreover, there is an emphasis on metalworking that is unusual in a Southern center.

Existing Industries

Unlike some cities, Chattanooga has found most of its industrial growth in the industries that have originated or developed in the area. Attesting to the health of the local business climate are the success stories of literally scores of growing firms.

For example, Chattanooga Glass Company is one of the world's largest manufacturers of soft drink bottles. Chattanooga Medicine Company produces drugs and medicines for shipment throughout the world.

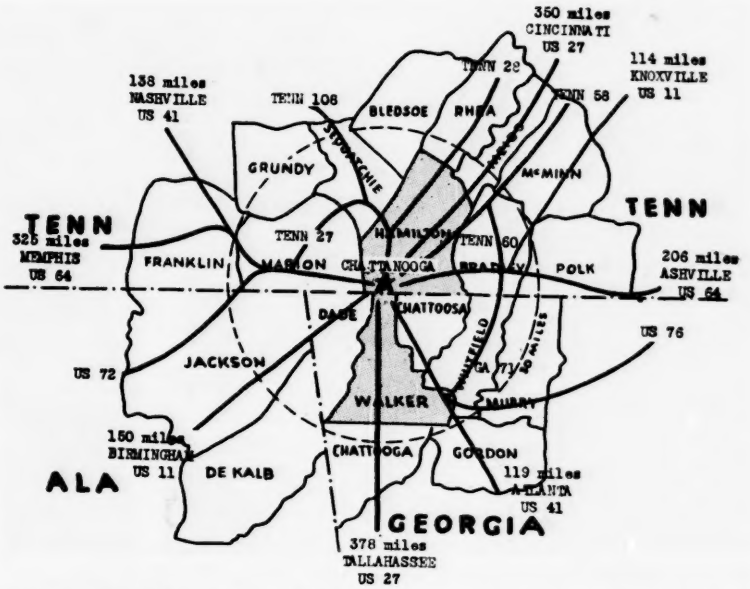
The world's first nylon stockings were produced here at the Davenport Hosiery Mills. And, as a matter of fact, nylon is made here at du Pont's huge plant.

One of the largest metal fabricating plants is the Wheland foundry. Other important metal industries include Southern Ferro Alloys, U. S. Pipe and Foundry, Chattanooga Boiler and Tank, Ross-Meehan Foundries, Samuel Stamping and Enameling and Crane Enameling.

There are a round dozen tool and die-making firms in Chattanooga as well as a variety of small enterprises manufacturing specialized equipment. There is a strong emphasis on technology throughout the area.

In fact the boilers for the first atomic submarine were made here in the Combustion Engineering plant. CE also made the first nuclear reactors for private use.

Just recently CE has expanded its plant here to provide additional space for manufacture of heavy reactor components. Dock facilities have been installed to make it possible to ship such products by water.



CHATTANOOGA'S market area includes parts of Tennessee, Alabama, and Georgia. A tourist attraction atop Lookout Mountain here advertises that seven states may be seen on a clear day.

Food processing firms have expanded here to supply a trading area which includes parts of Georgia and Alabama. Leading firms include Patten Food Products, Stewarts, Inc., Wilson and Company, Fleetwood Coffee, Quaker Oats and Lookout Oil.

Of course, textiles are important in Chattanooga. Among leading plants are Dixie Mercerizing, Kingsboro Silk Mills, Signal Knitting Mills and Standard-Coosa-Thatcher.

Almost every fabric known is made in or near Chattanooga. Recently the tufted textile industry has expanded at a sensational pace in the area just southeast of the city.

One of the most unusual plants is that of Southern Chemical Cotton Company where a variety of products are made from cotton linters—the fuzz left on cottonseed after ginning. This firm operates a substantial research laboratory for product and process development.

Another firm which depends heavily on research is American Lava Corporation. Technical ceramics are made here for specialized applications throughout American industry.

Many of Chattanooga's most promising industries have sprung up here within the past few years. Examples include Campbell Industries, manufacturers of electronic components, founded in 1951; W. L. Jackson Manufacturing Company, water heaters and furnaces, 1947; Scenic City Hosiery Mills, 1952; and Koehring Southern, 1952.

Chattanooga has also been the choice of a variety of national concerns locating branch plants in the South. An example is the $1 million plant built here by Cutter Laboratories of Berkeley, California. And, of course, the downtown area is dotted with district offices of many national concerns.

An example of recent industrial growth is the huge new $25 million plant of Cramet, Inc., an affiliate of the Crane Company. The Chattanooga unit is said to be the first large-scale

Feature City Series

This is another in a series of special reports on Southern cities and metropolitan areas which enjoy unusual growth possibilities. Reprints of this section are available from the Chattanooga Chamber of Commerce, 819 Broad Street, Chattanooga, Tennessee.

DALE W. McMILLEN, founder of McMillen Feed Mills, got some help from his great-granddaughter in pushing the button that launched operations in the new multi-million dollar plant opened in Chattanooga recently.

titanium sponge production plant in the nation.

Another important addition is the $5 million plant recently added by Central Soya Company. This new facility processes soy beans at a new river site.

Official opening of Central Soya and McMillen Feed Mill's new plant here recently placed Chattanooga in the South's industrial spotlight. For the event—hailed by the Governors of several states—marked several "firsts" for the region.

From the viewpoint of site selection, plant design, and operation, the $5 million unit represents several significant departures.

Less than 16 months under construction, the new operation will include a highly efficient soybean solvent extraction plant, one of the most modern feed mills in the country and grain merchandising facilities that will make Chattanooga a prominent southeastern grain terminal.

ENJOYING barbecue on the grounds at the opening of the McMillen plant were (left) Charles McD. Puckette, president of the Southern Newspaper Publishers Association and general manager of the *Chattanooga Times*, and (right) Earl Cocke, chairman of the board of the Fulton National Bank of Atlanta and vice president of the American Bankers Association.

Production q u a l i t y, construction economy, plant safety and appearance were carfully designed into the ultra-modern operation. Strategically located on the Tennessee River northeast of Chattanooga, the plant is equipped to receive soybeans, grains and other feed ingredients by river, by rail and by highway. The soybean meal and complete line of livestock and poultry feeds produced at the new plant can be distributed by the same three transportation methods.

In appearance, the entire plant is a strikingly modern structure. Different colored paints in combination with aluminum siding and translucent corrugated plastic sheets have been used to co-ordinate lighting, beauty and structural design.

The lack of adverse weather conditions in the Chattanooga area made it possible to locate three of the four huge drying and cooling tubes outdoors, adjacent to the solvent and milling buildings. This not only contributed to economical construction, but also made it possible to obtain improved efficiency, lower maintenance costs and a more uniform operation. This plant will feature the production of a 50% protein soybean meal for use in the manufacture of Master Mix poultry and livestock feeds.

The Chattanooga plant is the only company operation to include marine transportation facilities for soybeans, grains and other feed ingredients. With this distinct advantage of water transportation, the plant is in a position to barge agricultural commodities such as soybeans, corn, pelleted alfalfa, corn gluten meal and corn gluten feed, as well as other materials which have never been handled by barge in the southeast before.

Combined with this important feature is a 38-silo storage operation which is the largest elevator south of the Ohio River. Ingredients coming into the plant by rail, truck and river are weighed, inspected and safely stored in the three million bushel capacity silos.

Expansion Factors

What are the reasons for the widespread and varied industrial growth

AN IMPORTANT factor in the location of new plants in the Chattanooga area is the availability of barge transportation through the nation's inland waterway system. The new McMillen plant (left) will bring in many of its raw materials by barge as shown at right.

in the Chattanooga area? A survey of the section indicates that major factors include markets, raw materials, and manpower resources. Transportation and water also loom as highly important attractions.

Another important factor in attracting industry to the Chattanooga area is the variety of mineral resources to be found in Tennessee. These include basic materials that have been under development for decades as well as minerals just coming into industrial use.

In the latter category is the uranium-bearing Chattanooga black shale which has been the object of intensive research by the Atomic Energy Commission for the past four years. In fact the AEC just last month awarded a $25,000 contract to the University of Tennessee for a continuation of this study.

A team headed by Dr. Paris B. Stockdale will recheck and analyze its findings on the amount of uranium and other minerals of potential economic value in the shale. Such information, plus results of oil content studies being made by the U. S. Bureau of Mines Oil Shale Laboratories, should ultimately be of great value to the state.

Cooperating in U-T's "backyard study" are Columbia University, which is investigating technological aspects of extracting the uranium, and Pennsylvania State University, which is studying the mineral content of the shale. The programs at all three schools are supported by the AEC.

Dr. Stockdale, head of U-T's geology and geography department, has been studying an area bounded by Moore County on the south, and running north to Kentucky and west to Sumner County. Tennesee has two other major outcrop areas of the shale. It appears in a belt from Chattanooga to Cumberland Gap and also along the eastern side of the Sequatchie Valley.

The Chattanooga Metropolitan Area, as defined by the Bureau of the Census, comprises all of Hamilton County, Tennessee, and all of Walker County, Georgia. The population of the Chattanooga Metropolitan Area in 1950 was 246,453, of which 131,041 or 53.2 per cent resided within the city and 115,412 or 46.8 per cent in the area outside the city.

The population of the Chattanooga Metropolitan Area in 1950 was 81.8 per cent white, and 18.2 per cent nonwhite. Of the total area population of 246,453 only 0.6 per cent were foreign-born, as compared with 6.7 per cent for the United States.

The Chattanooga Trade Area extends well beyond the Metropolitan Area and includes 18 Tennessee, 11 Georgia and 5 Alabama counties. The population of this area, in 1955, reached 1,034,000; an increase of 30,837 in five years.

The Chattanooga Labor Market Area includes all or parts of 11 Tennessee, 7 Georgia and 2 Alabama counties. Federal, state and local highways make Chattanooga easily accessible to the 387,423 residents of the area. Estimates prepared by the Tennessee Department of Employment Security indicated a labor surplus of 5,650 in the Chattanooga Metropolitan Area at the end of 1955.

Local manufacturers, many of whom have similar operations in other cities, are high in their praise of Chattanooga labor. They rate it high in productivity and in ability to acquire new skills. They are particularly impressed by the employee's pride in his work and the desire to accomplish as much as possible during a working day.

The economy of the Chattanooga Metropolitan Area is based primarily on manufacturing. In July, 1955 a total of 43,800 persons were employed in the manufacture of a wide variety of goods. The following table shows the high degree of diversification found in Chattanooga manufacturing:

Manufacturing Employment: July, 1955

Industry	*Employment*
Non-Durable Goods	
Apparel	11,900
Chemicals	5,400
Food Products	1,000
Paper Products	2,450
Textile	1,450
All Other	1,500
Total	23,700
Durable Goods	
Fabricated Metals	6,900
Furniture and Fixtures	3,950
Lumber and Mill Products	2,650
Machinery (Ex. Electrical)	1,200
Primary Metals	2,650
Stone, Clay and Glass Products	1,450
All Other	1,300
Total	20,100

As one result of such wide diversity of manufacturing, industrial employment and income are unusually stable. According to the Tennessee Department

ALSIMAG

CUSTOM MADE TECHNICAL CERAMICS

Used by All Industry

Wherever there is need for materials that are hard . . . strong . . . wear resistant . . . an excellent electrical insulator . . . chemically inert . . . will not rust, corrode, carbonize or deteriorate . . . resistant to heat shock . . . with controlled finishes and coefficient of expansion . . . AlSiMag custom made ceramics are a wise choice. AlSiMag can be fabricated in a wide range of shapes and sizes, to almost any tolerance required. New applications are constantly being worked out and new compositions perfected. AlSiMag Aluminas are a typical example. These "most wanted" materials can now be produced in volume from recently installed special production facilities. Interest is industry-wide in their superior performance in applications such as:

THROW AWAY TOOL BITS for cutting hard metals. Some of the biggest machine tool and metal working operators, including those in the automotive and aviation industries, predict ceramic cutting tools will soon challenge carbides for high speed cutting of high strength materials. *For samples and technical data, contact our STEATITE DIVISION at the address given below.*

HARDER, STRONGER ALUMINA THREAD GUIDES for top performance where special characteristics, including finishes not readily changed by usage, are needed. Durable AlSiMag Alumina thread guides rank among the hardest materials yet made by man, providing a complete range of desirable traits for exacting requirements. *For samples and complete details, send inquiries to our TITANIA DIVISION, address below.*

AMERICAN LAVA CORPORATION

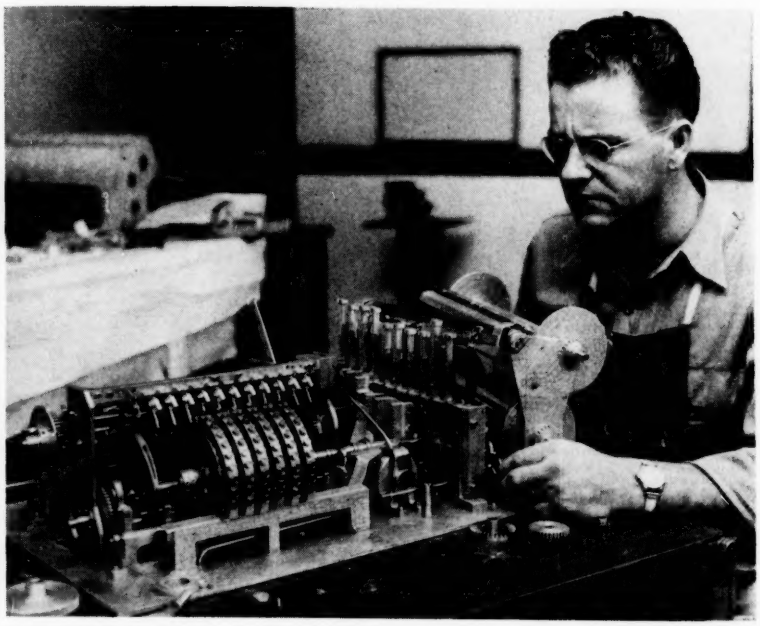
A Subsidiary of Minnesota Mining and Mfg. Co.

CHATTANOOGA 5, TENNESSEE

54TH YEAR OF CERAMIC LEADERSHIP

Branch Offices in Principal Cities

See Your Local Telephone Directory



AN OUTSTANDING Chattanooga institution is the Industrial Research Institute at the University of Chattanooga. Here John B. McCloud adjusts a mechanical computer used in solving civil engineering problems.

of Employment Security, the average weekly earnings of all employees engaged in manufacturing in Chattanooga, as of July, 1955, was $61.71. Thus, the 43,800 persons engaged in manufacturing will receive a total payroll for the year of $140,550,696. During the same period 27,450 persons were employed in wholesale, retail, and service trades, and 10,200 in transportation, communication, utilities and construction.

The city's strategic location and transportation facilities combine to give Chattanooga industries one-day rail and highway delivery to more than one-half the nation's population, all residing within 600 miles.

Chattanooga is served by nine main lines of four railroads. The Southern Railway System operates five trunk-line divisions to and through the city; the Nashville, Chattanooga, and St. Louis Railway operates two divisions; the Central of Georgia Railway and the Tennessee, Alabama and Georgia Railway each operate one division into the city. These four railroads, with their connecting lines, afford excellent rail facilities, including L.C.L. service to principal cities.

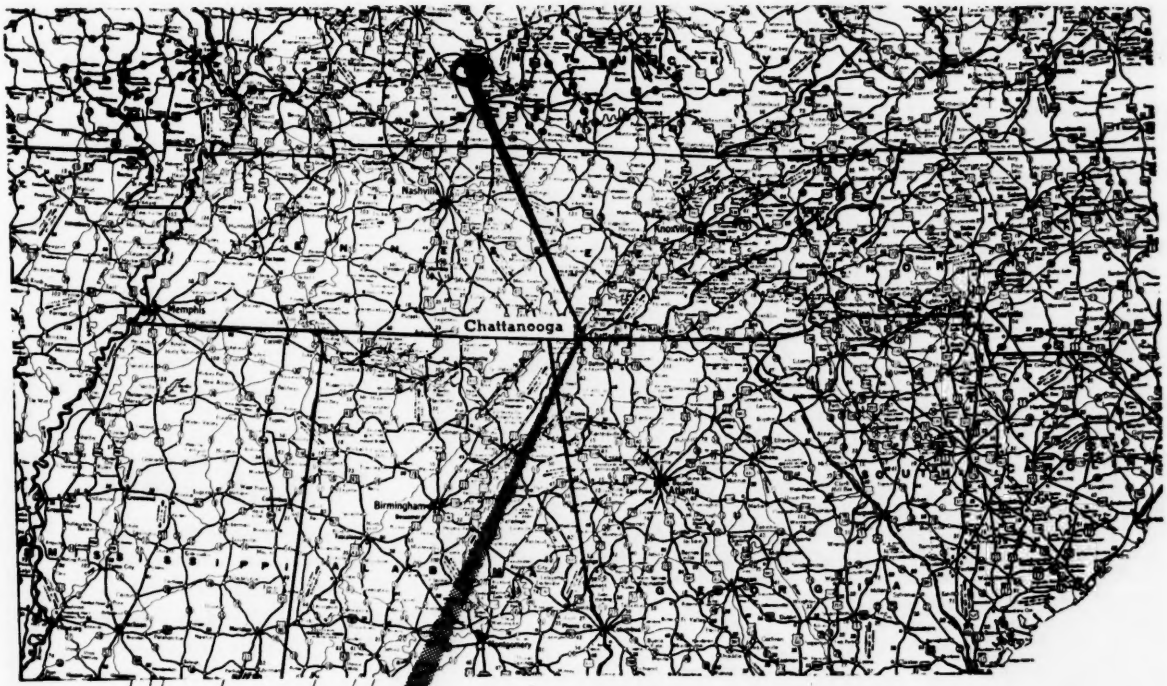
The "TAG" railroad has recently undertaken an aggressive sales and promotion program under the leadership of president O. B. Keister, Jr. And in 1955 TAG became the first line in the South to launch "piggy back" service, moving highway trailers on flat cars.

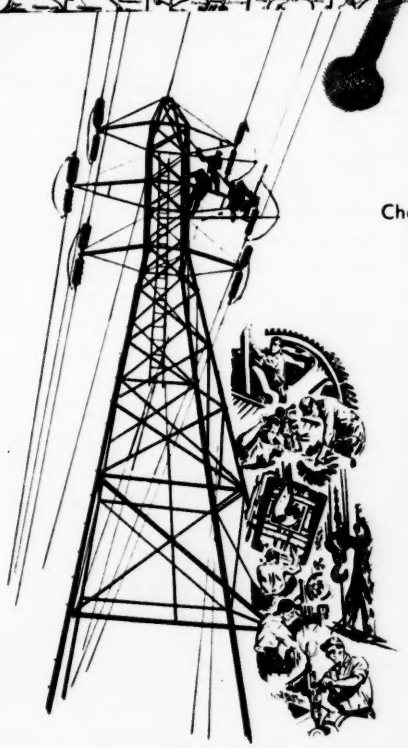
Three clasification yards provide prompt and efficient switching service. The Central of Georgia Railway began construction of a new and modern classification yard in 1952. The Southern Railway started construction of its new $14 million yard in 1953 and the N.C. & St. L. contemplates the enlargement and modernization of its Chattanooga yard in the near future.

All of these lines have well-established industrial development departments eager to assist executives looking for sites in the Chattanooga area. These experts have at their fingertips detailed data concerning the many factors which influence plant location.

Chattanooga shippers also enjoy the benefits of favorable reciprocal switching rates, a complete line of transit privileges and liberal multiple loading rules; and, in addition, the Belt Line and Signal Mountain Traction Companies afford access spur tracks throughout the industrial area.

An extensive network of Federal and State highways radiates from Chattanooga in all directions. Five major U. S. highways serve the City: U. S. 11,





A POINT TO REMEMBER

FOR GROWING INDUSTRY

Chattanooga, the hub of industrial south, is a leading city in the nation for diversified industry. Be sure to consider its superior advantages for your new plant. You will find a friendly city of large labor force, abundant transportation including the Tennessee River, nearness to raw materials, plentiful housing and recreation. Chattanooga is also the Electrical Center of the South.

CHATTANOOGA'S LOW-COST INDUSTRIAL ELECTRIC RATE IS ...

Alternating current, three-phase, sixty cycles. Voltage supplied will be at the discretion of Board and will be determined by the voltage available from distribution lines in the vicinity and/or other conditions.

RATE

Demand Charge—$1.00 per month per kilowatt of demand.

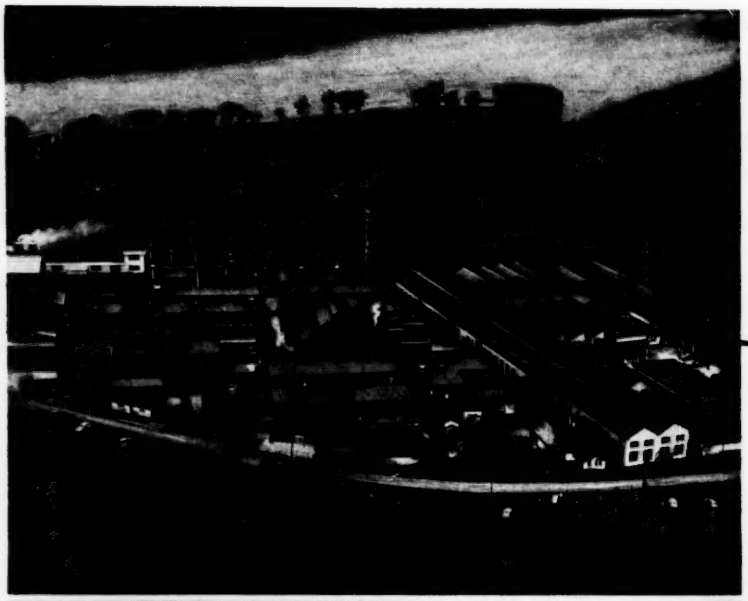
Energy Charge—

First	10,000	KWH	consumed	per	month	@	10	mills	per	KWH
Next	25,000	"	"	"	"	@	6	"	"	"
Next	65,000	"	"	"	"	@	4	"	"	"
Next	400,000	"	"	"	"	@	3	"	"	"
Excess over	500,000	"	"	"	"	@	2.75	"	"	"

The rate for the final block of the energy charge will be increased or decreased by 1/8 mill per KWH for each full cent or major fraction thereof that the average cost per million BTU of all coal received by TVA at its steam plants during the last six months ending with June or December exceeds 20 cents or is less than 16 cents, respectively.

ELECTRIC POWER BOARD OF CHATTANOOGA

SIXTH AND MARKET STREETS, CHATTANOOGA 2, TENNESSEE



Aerial View of
The Wheland Company
Broad Street Plant

WHELAND

A fast growing industry that has found the Chattanooga business climate favorable—having multiplied its volume 10 times in the last decade.

Aerial View of
The Wheland Company
North Chattanooga Plant

ESTABLISHED 1866

Manufacturers of complete sawmills and auxiliary equipment

Rotary drilling equipment for the oil fields

Custom producer of complete equipment and components for government and industry

Quantity producer of grey iron castings

Precision fabricator of specially hardened ferrous and non-ferrous metal parts, large or small

THE WHELAND COMPANY

MAIN OFFICE AND PLANTS AT CHATTANOOGA, TENNESSEE

Your Best "First Contact" in Tennessee

From cornfield . . .

The Wheland Company, Ordnance Division, Chattanooga, Tennessee
Architects: Giffels & Vallet—L. Rossetti, Associates, Detroit, Mich.

. . . through equipment installation

A THIRD GENERATION COMPLETELY EQUIPPED CONTRACTING SERVICE

SITE PLANNING

GRADING

SEWERS

SEWAGE DISPOSAL PLANTS

WATER DISTRIBUTION

WATER FILTRATION

GAS DISTRIBUTION PIPE LINES

INDUSTRIAL CONSTRUCTION

MACHINERY INSTALLATION

HIGHWAYS

BRIDGES

TUNNELS

DOCKS

RIVER DREDGING

PILE DRIVING

PRESSURE GROUTING

FULLY OPERATED EQUIPMENT RENTAL

EQUIPMENT DESIGN

EQUIPMENT MANUFACTURE

SPECIAL PROBLEM CONSULTANTS

STEIN
CONSTRUCTION COMPANY

1077 Duncan Avenue • Chattanooga, Tennessee

SERVICE BEFORE AND BEYOND THE CONTRACT

• We are general contractors who are equipped to do and actually do more types of construction than any other general contractor in the South. We have the men, the experience and the know-how to handle your work—one contract, one management, one responsibility.

• **Confidential inquiries** should be addressed to the personal attention of Gilbert Stein, or Phone 9-3271.

PROGRESS
in
Chattanooga

Results from—

Location,
Climate,
Water,
Power,
Labor,
Friendliness
of People,
and Gov't.
We also have
Lakes, Mountains,
Parks.

We invite you to join us.

Inquiries confidential.

Real Estate Management, Inc.

Scott N. Brown SIR. CPM.
President
709 Chestnut St.
Phone 5-3151

from Rouse's Point on the New York-Canadian border to New Orleans; U. S. 27, from Mackinaw City to Tallahassee; U. S. 41 from Chicago to Miami; U. S. 64, from Kitty Hawk, North Carolina to Santa Fe, New Mexico; U. S. 72, from Chattanooga to Memphis.

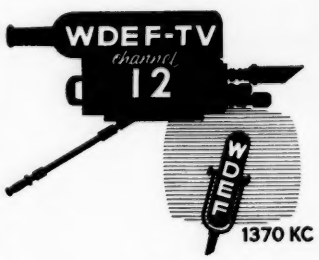
Thirty-three regular route, common carrier trucklines serve Chattanooga. In addition, numerous contract and irregular route carriers are authorized and equipped to offer specialized, flexible service to industries throughout the area.

Natural gas is brought into Chattanooga by the East Tennessee Natural Gas Company's looped system consisting of 12 inch, 16 inch, and 22 inch lines. Gas is delivered to the Chattanooga Natural Gas Company for distribution.

The Chattanooga Gas Company, a locally owned corporation, distributes natural gas purchased from the East Tennessee Natural Gas Company. Minimum heat content is 1050 BTU, and the supply is adequate for all existing local needs, with sufficient reserve to support large scale industrial expansion.

★*Entertainment*
★*Information*
★*Education*
★*Public Service*

on
radio and television
it's



in
CHATTANOOGA
TENNESSEE

The Electric Power Board of Chattanooga, a municipal corporation, distributes electric power at retail throughout the Chattanooga area. It is the policy of the Board, at its own expense to extend its service from existing lines to its customer's receiving point and, when necessary, to supply standard transformers for delivering the customer's requirements.

According to S. R. Finley of the EPB, Chattanoogans use an average of 9,290 kw. hours of electricity per year —the highest usage for any similar sized or larger city in the nation. Some 93 per cent of local residents have electric refrigeration, 92 per cent electric cooking, and 71 per cent electric water heating.

Both the Southeastern Pipeline Company and the Plantation Pipe Company have 8 inch transmision lines coming into the city. Gasoline, kerosene, diesel fuel and various grades of oil are supplied to local and regional distributors.

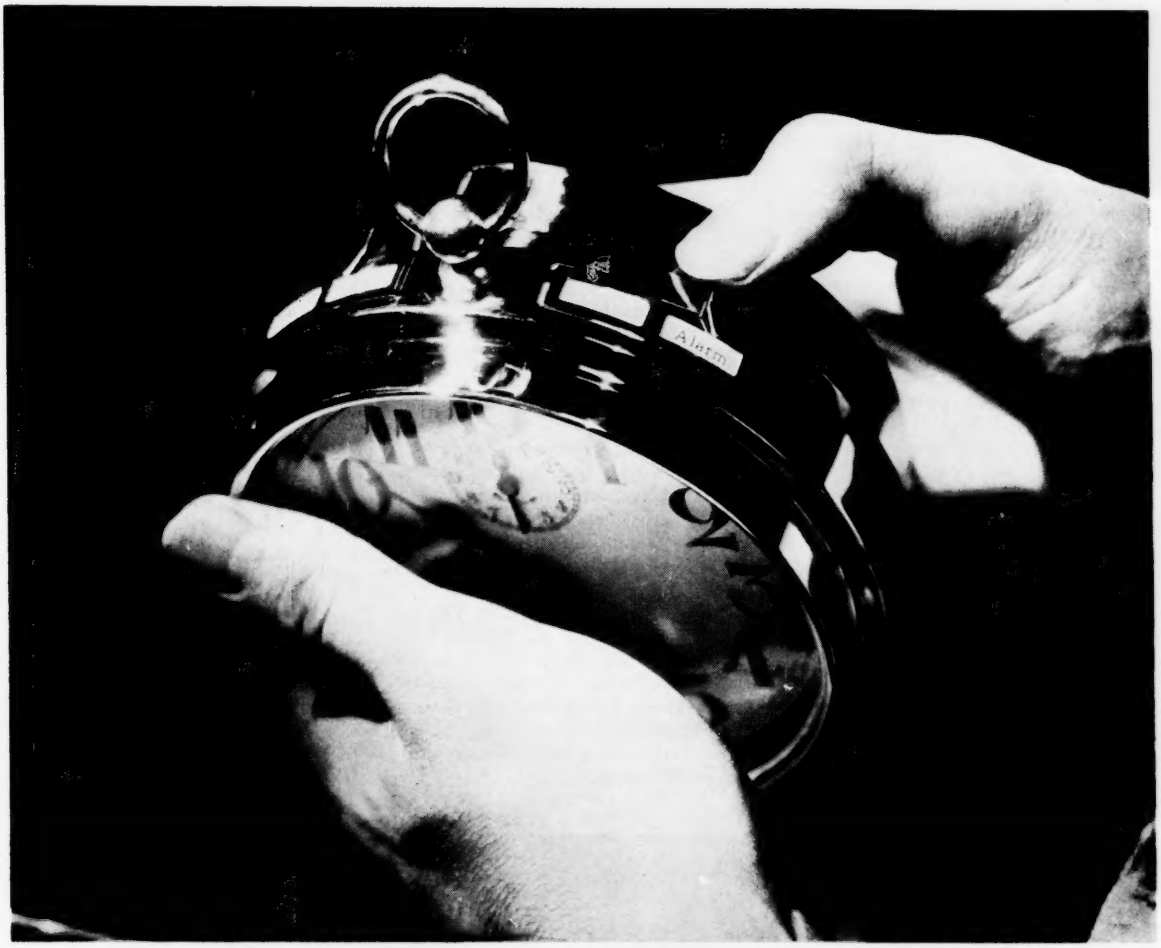
Highway passenger service is furnished Chattanooga by 11 bus companies operating 158 busses daily to the principal cities of the country. Urban and interurban transportation in the Chattanooga area is provided by Southern Coach Lines, Inc. The company operates 124 busses daily over 161 miles of scheduled routes in the city and adjacent area. This system enables industrial plants to draw employees from the entire region.

10,000 Mile Waterway

Canalization of the Tennessee River to a 9-foot minimum navigable depth from its junction with the Ohio River at Paducah, Kentucky, to Knoxville, Tennessee, gives Chattanooga the far-reaching benefits of year-round, low-cost water transportation and a port on the nation's great 10,000 mile inland waterways system. This system, formed largely by the Mississippi River and its tributaries, effectively links Chattanooga with the Great Lakes on the North and the Gulf of Mexico on the South.

Lovell Field, Chattanooga's municipal airport, has a class 5 rating. The field has paved runways of 150 x 6200 feet and 150 x 5000 feet. Scheduled flights are offered by Eastern, Capital, Delta-C & S Airlines and Braniff Airways.

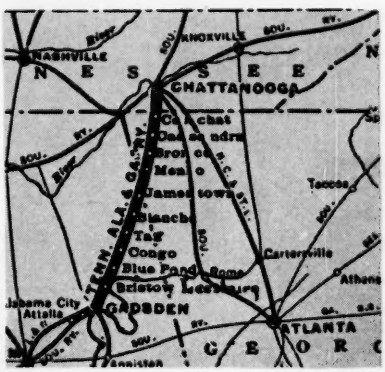
Local transfer and storage com-



Chattanooga...right on time...

There is no need to set your alarm to look for your shipments when you are serviced by the Tennessee, Alabama & Georgia Railway. Our shippers will tell you that the PERSONAL service we render cannot be excelled. Our beautiful valley of ninety-two miles connects the steel producing center of Gadsden and the highly diversified manufacturers of Chattanooga with overnight service. An abundance of water (both underground and surface), labor, cheap electric power, natural gas is yours for the asking. We are small enough to serve your needs and to give you every advantage in the transportation of your products.

We extend to you a cordial invitation to visit us in Chattanooga. We know you will be pleased!



Tennessee TAG Route Alabama & Georgia Railway

...The Railroad personal service built...

Direct connections with all trunk line carriers at Gadsden and Chattanooga.

panies are fully equipped to provide complete mechandise storage and distribution for virtually all commodities as well as the long distance moving service of the principal national van lines. Modern dry and cold storage is available from 7 licensed warehouse companies.

The City Water Company, a subsidiary of the American Waterworks Company, Inc., distributes water throughout Chattanooga and vicinity, taking its supply from the Tennessee River. The water supply system has a nominal low service pumping capacity of 85 million gallons per day, a nominal daily filtration capacity of 42 million gallons and an 8.2 million gallon clear water storage reservoir. Relay pumping equipment has a nominal capacity of 15 million gallons. An average pressure of 65 lbs. is maintained through 677 miles of mains ranging in size from 2 inches to 30 inches.

Chattanooga's four banks and trust companies offer every modern accommodation and convenience to industry, commercial firms and individuals. All banks are FDIC members. More than a dozen branch banks serve customers in industrial and suburban areas.

The home offices of three major life insurance companies are located in Chattanooga. They include Interstate Life & Accident Insurance Company, Volunteer State Life Insurance Company, Provident Life & Accident Insurance Company.

Civic Attractions

The Civic Chorus, and the Symphony Orchestra, sponsored by the Chattanooga Philharmonic Association, the Opera Association, the Community Concert Association, and many other musical organizations present outstanding attractions each year. The Little Theatre offers both entertainment and stage training in its seasonal presentations of popular theatrical productions.

The George Thomas Hunter Gallery of Art, supported by the Chattanooga Art Association, holds sixty-five to seventy exhibitions annually of paintings, drawings, sculpture and design. The nationally known "Plum Nelly" outdoor art show is held annually atop Lookout Mountain.

The Clarence T. Jones Observatory, located near Brainerd Jr. High School, equipped with 20½ inch Cassegrain telescope, is open to the public weekly.

Cadek Conservatory of Music of the University of Chattanooga was founded in 1904. The advanced department serves as the Music Department of the University and has en enrollment of approximately 2,000 students and a faculty of 50 teachers.

Chattanooga operates under a commission form of government and is governed by a mayor and four commissioners, elected for four-year terms. The Chattanooga-Hamilton County Planning Commission works closely with city and county officials to maintain a balanced land usage program which will meet the needs of the community as a whole and provide adequate areas for residential, industrial and commercial development.

In Tennessee the county is an important unit of local government, Hamilton County operates under a council-manager form of government composed of the County Judge, as chairman, and four members, elected by popular vote to serve four-year terms.

The county government, like the city government, is industry-minded and makes every effort to cooperate with the many industries that are outside the corporate limits. The two governments work closely together for the benefits of all their citizens.

Adequate fire protection is afforded by a completely motorized fire department, with a personnel of 202 officers and men, 13 modern stations, 20 mobile truck units, and 7 chief's cars, all equipped with 2-way radio. A new $500,000, 530-station "Gamewell" fire alarm system, the most modern available, was placed in operation in 1953.

Chattanooga has one morning newspaper, *The Chattanooga Times*, issued daily and Sunday, and one evening newspaper. The *Chattanooga News-Free Press*, issued daily except Sunday. These two papers had a daily net paid circulation in 1955 of 118,445.

Chattanooga has eight radio stations. Each of the major chains—ABC, CBS, MBS, and NBC is represented, and there are two independents, standard wave, and 2 FM stations.

Chattanooga has been assigned five channels for television transmission. WDEF-TV, Channel 12, is currently on the air; other stations are expected to begin operations in the near future.

CHATTANOOGA CHOO-CHOO: Railroads are playing a prominent role in the development of the Chattanooga area. Here O. B. Keister, TAG president, welcomes John E. Tilford, L & N president from Louisville. Others (left to right) are Julian A. Taylor, district traffic manager of Republic Steel in Birmingham; Miles C. Kennedy, TAG board chairman of New York; W. S. Hackworth, president of NC & St. L in Nashville; T. H. Bannister, vice president of Frisco in St. Louis; J. K. Dent, L & N vice president, Louisville; and R. A. Eldridge, general traffic manager of Republic Steel, Cleveland.

Corrugated and solid fibre shipping containers, folding cartons

O. B. Andrews Division

CONTAINER CORPORATION OF AMERICA

ROSSVILLE BOULEVARD

CHATTANOOGA 1, TENNESSEE

KEY MAN in pushing Chattanooga's industrial progress is Durward B. Williams (left) Industrial Director of the Committee of 100—an arm of the Chamber of Commerce. Discussing a new aerial map used in site selection are S. V. (Mike) O'Lenic, Chairman, and Gilbert Stein, Vice Chairman.

To meet the demands of a growing city, a large-scale program of public works is now under way that will provide railroad consolidation and track elevation, a new bridge across the Tennessee River and connecting expressways through the city.

Work is now underway on a $10,450,000 program which, when completed in 1957, will provide Chattanooga with two modern sewage treatment plants and an adequate system of storm and sanitary sewers. This program is being financed by a sewer service charge payable with monthly water bills.

Climate is something to which Chattanooga "points with pride." Here is the record for the past 53 years:

	Average Temeprature	*Average Precipitation*
Jan.	42.2°	5.26 in.
Feb.	44.2	5.00
Mar.	51.6	5.96
April	60.3	4.65
May	68.7	3.91
June	76.2	4.13
July	78.7	4.68
Aug.	77.8	3.88
Sept.	72.7	3.04
Oct.	61.8	3.01
Nov.	50.3	3.50
Dec.	43.0	5.10
Avg.	60.6°	52.12 in.

Chattanooga also has claim to 225 frost-free days from March 20 to November 5. For the past 75 years the record of cloudy and clear days is as follows: Cloudy—118, Partly Cloudy—132; Clear—115. And for 57 years the percentage of possible sunshine has been 56 per cent with 3,228 seasonal heating degree days. Prevailing wind is from South-Southwest.

These data are for downtown Chattanooga, average elevation 672 feet. Comparable official temperature and humidity records for the Lookout and Signal Mountain areas, at more than 2,000 feet elevation, are not available; however, these areas are always several degrees cooler in summer than the downtown section, and are often warmer in winter due to cloud cover.

A wide variety of vocational training is offered by both city and county high schools. Such subjects as auto mechanics, woodworking, machine shop, sheet metal, radio and television, welding, commercial art, dietetics, cosmetology, practical nursing, and home service are available in regular high school courses.

Kirkman Vocational School offers classes in air conditioning and refrigeration, blue print reading, commercial subjects, electricity, machine shop, sheet metal layout, trade courses, and welding as a part of the vocational program, with still other classes available on demand. A night high school program offers accredited courses leading to high school graduation.

The University of Chattanooga, a privately controlled and endowed senior college, offers Bachelor's degrees in Liberal Arts, Science, Business Administration, and Music; and Master's degrees in teacher training, music and chemistry. Housed in a new and specially designed building, its Industrial Research Institute was established in 1945 and is well equipped for research in the various branches of chemistry and chemical engineering. The Institute is directed by Dr. J. H. Coulliette.

The Chattanooga area offers exceptional opportunities to the sportsman. Fields and forests give the hunter a wide range of game birds and animals, including upland game birds, waterfowl, deer, bear and wild boar. Deer hunters reported a harvest of 1373 during the 6-day open season last year.

Chickamauga Dam, at the northern edge of the city, forms a lake 59 miles long with a shore line of 810 miles. Numerous public marina and docks furnish facilities for boating and swimming. In addition, there are several private lakeside clubs offering many recreational opportunities to members and their friends.

Point Park, a part of the 2,411-acre Chattanooga-Lookout Mountain National Military Park, is also a favorite of residents and visitors alike. Its more than 2,000 foot elevation insures cool breezes on a summer afternoon, as well as affording a panoramic view of the city, the surrounding mountains and the famous Mocassin Bend of the Tennessee River.

Warner Park Field House, a municipally owned building, with a seating capacity of 10,000, is available for public use. Many industrial exhibitions are held here each year.

Recommended Reading

Chattanooga Industrial Data, Industrial Report compiled by Committee of 100, Chamber of Commerce, Chattanooga, January 1955, 31 pp.

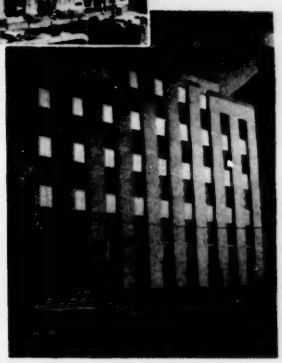
Directory of Manufacturers—Chattanooga and Vicinity, published by Research Department, Chattanooga Chamber of Commerce, Chattanooga 2, 1952, 38 pp., $2.

Industrial Resources of Tennessee—Revised Edition—1948, Forests, Agriculture and Minerals, Vol. 2, Tennessee State Planning Commission, 432 6th Ave., N., Nashville 3, 100 pp., $1.

Selected Studies of Negro Employment in the South—Negro Employment Practices in the Chattanooga Area, Report No. 6:5, National Planning Association, 1606 New Hampshire Ave., N. W., Washington 9, D. C., 1954, 85 pp., $1.50.

Economic and Business Statistics of Tennessee, 1935-1953, by Robert S. Hutchison, Study No. 25, Bureau of Business and Economic Research, The University of Tennessee, Knoxville, 44 pp.

Home Office Building:
The Volunteer State Life Insurance Co.
Founded in 1903



Home Office Buildings:
Provident Life and Accident Insurance Co.
Founded in 1887

Chattanooga

. . . a pleasant place to live

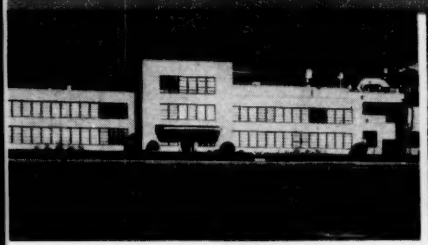
Wooded hills, rivers and lakes . . . moderate climate . . . superior schools and churches . . . a bustling business center, progressive yet friendly . . . a few of the reasons why Chattanooga is such a good place to work, to live, to raise a family . . . why so many fine folks and firms have chosen to make it home.

Typical good neighbors are Chattanooga's three major insurance companies, which have played an important part in the city's growth and development . . . employing about 1300 people in happy surroundings . . . prompt to support community, cultural and welfare activities.

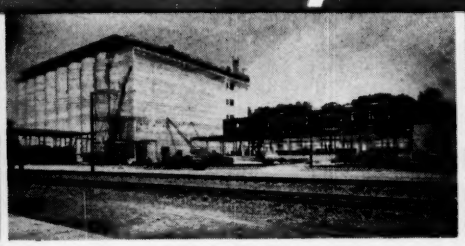
You'll find helpful cooperation everywhere in Chattanooga . . . people who will be happy to work with or for you, whether you're visiting or plan to stay!

Home Office Building:
Interstate Life and Accident Insurance Co.
Founded in 1909

CHATTANOOGA, TENNESSEE



E. I. DUPONT DeNEMOURS & CO.



CENTRAL SOYA CO.

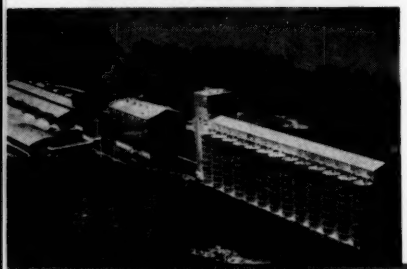
CUTTER LABORATORIES

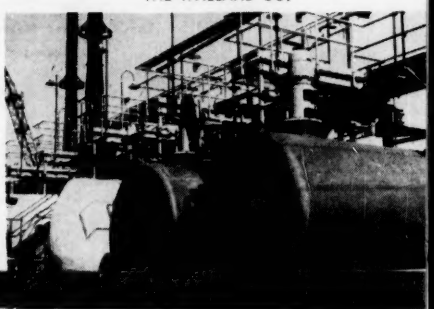
KOEHRING SOUTHERN CO.

WHY ?

Why have these
7 NEW INDUSTRIES INVESTED
$127,000,000
IN CHATTANOOGA
since 1948?

THE WHELAND CO.

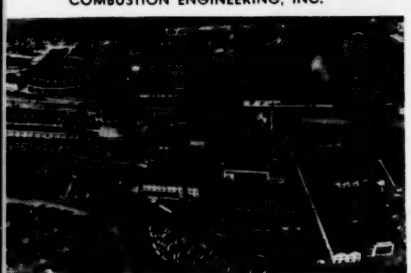




COMBUSTION ENGINEERING, INC.

Why have these
7 ESTABLISHED INDUSTRIES INVESTED
$57,000,000
in industrial expansions
IN CHATTANOOGA
since 1948?

SIGNAL MOUNTAIN PORTLAND CEMENT CO.



Because industries locate and expand where operations are

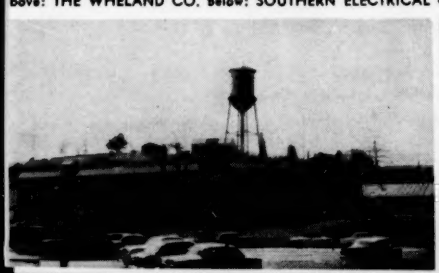
MOST PROFITABLE!

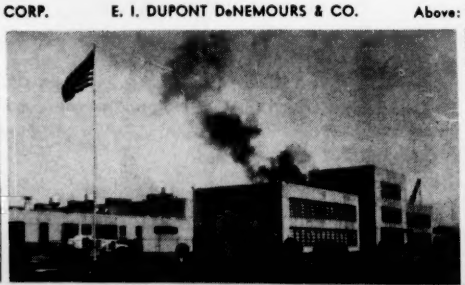
INDUSTRIAL COMMITTEE OF 100
Chattanooga Chamber of Commerce
819 BROAD STREET

Above: THE WHELAND CO. Below: SOUTHERN ELECTRICAL CORP.

E. I. DUPONT DeNEMOURS & CO.

Above: CRANE CO. Below: TENN. PRODUCTS & CHEMICAL CORP.





NEW APPOINTMENTS—Florida's Governor LeRoy Collins has recently named B. R. Fuller, Jr. (left) to head the state's expanded industrial development program. Major General Lewis A. Pick (right) has been named by Governor Folsom to direct Alabama's new Planning and Industrial Development Board.

SOUTHERN STATES PUSH DEVELOPMENT WITH MULTI-MILLION ANNUAL BUDGET

The state development agencies in the South today have an aggregate annual budget exceeding $3 million and employ more than 350 staff workers.

That is the result of a survey of state development activities conducted in recent months by the Southern Association of Science and Industry and reported at the recent Southern Governors' Conference by Arkansas' Governor Orval Faubus. Faubus is Chairman of a subcommittee on science and industry, which includes West Virginia's Governor William Marland and Oklahoma's Governor Raymond Gary.

The survey revealed, according to Faubus, that the state agencies throughout the South are conducting a variety of constructive programs and unquestionably deserve great credit for the economic progress of the region.

Continuing, Faubus pointed out that "the responsibilities of the various state development agencies vary widely and it is not possible to make direct comparisons of budgets and staffs." For example, he notes that the Virginia Department of Conservation and Development includes functions which in some states are assigned to several separate agencies. The same is true in North Carolina.

Average Budget $225,000

But, Faubus states, "looking at agencies which have somewhat similar assignments we find that the average annual budget is about $225,000. It is obvious, therefore, that this is a large-scale activity and that anything which can be done to bring about a coordination of effort will be of benefit to the entire South.

A summary of the programs of the various state groups is given below. Activities are indicated by a code as follows:

(1) Advertising and publicity, (2) Industrial development, (3) Economic research, (4) Tourist promotion, (5) Forestry programs, (6) Fish and wildlife, (7) Parks, (8) Plant financing, (9) Tax concessions, (10) Minerals development, (11) Water pollution control, (12) Planning and zoning, (13) Labor regulation, (14) Employment services, (15) Other.

Alabama — Alabama Industrial Development Commission, General Lewis A. Pick, Director. Budget, $166,000.

Arkansas — Arkansas Industrial Development Commission, William P. Rock, Director. Budget, $75,000. Staff, 8. Activities, 1-2-3-8-9-10-12.

Florida—Florida State Development Commission, B. R. Fuller, Jr., Director.

Georgia — Georgia Department of Commerce, Scott Candler, Secretary. Budget, $275,000. Staff, 15. Activities, 1-2-3-4-15.

Kentucky — Kentucky Agricultural and Industrial Development Board, Joseph H. Taylor, Executive Director. Budget, $719,000. Staff, 30. Activities, 2-3-10-15.

Louisiana — Louisiana Department of Commerce and Industry, Elmer D. Conner, Executive Director. Budget, $300,000. Staff, 31. Activities, 1-2-3-4-8-9-11-12-14.

Maryland—Maryland State Planning Commission, Alvin Pasarew, Director. Budget, $83,975. Staff, 13. Activities, 2-3-7-12-15.

Mississippi — Mississippi Agricultural and Industrial Board, H. V. Allen,

ARKANSAS GOVERNOR Orval Faubus is chairman of the special Subcommittee on Science and Industry set up by the Southern Governors' Conference. Other members of the Subcommittee include West Virginia Governor William Marland and Oklahoma Governor Raymond Gary.

CREOSOTED

Piling, Poles, Lumber, Cross Arms, Cross Ties

Also Penta- and Salt-Treated Lumber

Decay and Termite Proof

Docks for Ocean Vessels

American Creosote Works, Inc.

New Orleans, La.

Plants at New Orleans; Winnfield, La.; Louisville, Miss.; Jackson, Tenn.

Your Banking Needs... In Baltimore...

can be solved completely and easily at the Union Trust Company of Maryland.

For commercial banking, Union Trust offers fast, efficient service to all businesses, large or small . . . and Union Trust Foreign Banking services and facilities include direct contacts with banks in 58 countries, saving you time and trouble.

Solve all your banking needs . . . Bank at Union Trust!

25 OFFICES . . . ALL AROUND THE TOWN!

UNION TRUST

COMPANY OF MARYLAND

MAIN OFFICE:

BALTIMORE & ST. PAUL STS.

Member Federal Deposit Insurance Corporation
Federal Reserve System

Westmoreland Coal Company

HAMPTON COAL · CRITERION COAL

Stonega Coke and Coal Company

GLENBROOK · RODA · CROSSBROOK · STONEGA · DENDRON

Page Coal and Coke Company
Crozer Coal and Land Company

LYNCO · CROZER

PREMIUM ANTHRACITES
Products of Jeddo-Highland Coal Company
Hazle Brook—Raven Run

Genco Anthracites & Bituminous Coals

General Coal Company

123 SOUTH BROAD STREET . . . . . PHILADELPHIA 9, PA.

Cable Address: GENCO

Branches

BLUEFIELD, W. VA. · **BUFFALO** · **CHARLOTTE, N. C.**
CINCINNATI · **CLEVELAND** · **IRWIN, PA.**
NEW YORK · **NORFOLK**

WILLIAM P. SAUNDERS became director of the North Carolina Department of Conservation and Development on December 15 replacing Ben Douglas of Charlotte. Saunders previously was president of Robbins Mills, Inc., a firm which operated mills at four locations in the state. He has previously served as a member of the State Stream Sanitation Commission and the State Banking Commission.

Jr., Director. Budget, $200,000. Staff, 10. Activities, 1-2-3-4-8-9-10.

North Carolina—North Carolina Department of Conservation and Development, William P. Saunders, Director. Budget, $3,018,576. Staff, 372. Activities, 1-2-3-4-5-7-10.

Oklahoma—State Economic Development Commission, R. T. Klemme, Director. Budget, $225,000. Staff, 14. Activities, 1-2-3-8-9-10-12.

South Carolina—South Carolina Development Board, R. M. Cooper, Director. Budget, $280,338. Staff, 12. Activities, 1-2-3-4.

Tennessee — Tennessee Industrial and Agricultural Development Commission, Dr. George I. Whitlatch, Executive Director. Budget, $110,000. Staff, 9. Activities, 1-2-3-8.

Texas — No state development agency.

Virginia — Virginia Department of Conservation and Development, Raymond V. Long, Director. Budget, $1,331,225. Staff, 251. Activities, 1-2-3-4-5-7-8-10-14.

West Virginia—West Virginia Industrial and Publicity Commission, Andrew V. Ruckman, Executive Director. Budget, $108,433. Staff, 7. Activities, 1-2-4.

GALVANIZING

Prompt Delivery • Zinc and Cadmium Plating

Phone: 59-5401 METALPLATE CO. 757 N. 44th St. Birmingham, Ala.

CITY OF

Charming Contrasts

NEW ORLEANS

An enchanting combination of the Old World and the new . . . Stand surrounded by iron-embroidered mansions, tenderly preserved, while just a few blocks away, modern New Orleans surges skyward and to the horizons.

Your Convenient Host

hotel JUNG

On Famed Canal Street

Completely Air Conditioned • Television • Radio • Superb Food • Intimate Cocktail Lounge

Color Brochure on request

AFFILIATED NATIONAL HOTELS

ALABAMA
HOTEL ADMIRAL SEMMES ..... Mobile
HOTEL THOMAS JEFFERSON ..... Birmingham

DISTRICT OF COLUMBIA
HOTEL WASHINGTON ..... Washington

INDIANA
HOTEL CLAYPOOL ..... Indianapolis

LOUISIANA
JUNG HOTEL ..... New Orleans
HOTEL DESOTO ..... New Orleans

NEBRASKA
HOTEL PAXTON ..... Omaha

NEW MEXICO
HOTEL CLOVIS ..... Clovis

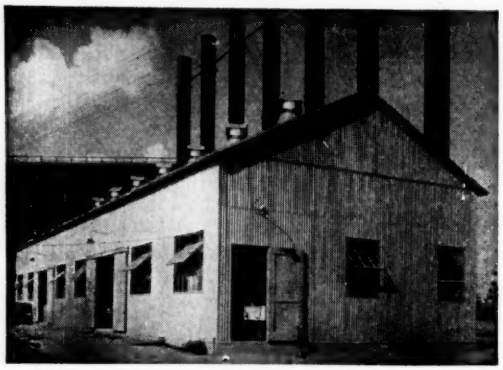
SOUTH CAROLINA
HOTEL WADE HAMPTON ..... Columbia

TEXAS
HOTEL STEPHEN F. AUSTIN ..... Austin
HOTEL BROWNWOOD ..... Brownwood
HOTEL BAKER ..... Dallas
HOTEL TRAVIS ..... Dallas
HOTEL CORTEZ ..... El Paso
HOTEL BUCCANEER ..... Galveston
HOTEL GALVEZ ..... Galveston
HOTEL JEAN LAFITTE ..... Galveston
CORONADO COURTS ..... Galveston
HOTEL PLAZA ..... Laredo
HOTEL LUBBOCK ..... Lubbock
HOTEL FALLS ..... Marlin
HOTEL CACTUS ..... San Angelo
HOTEL MENGER ..... San Antonio
ANGELES COURTS ..... San Antonio

VIRGINIA
HOTEL MOUNTAIN LAKE ..... Mountain Lake
HOTEL MONTICELLO ..... Norfolk

TELEPHONE
NEW YORK—Murray Hill 66990
CHICAGO—Mohawk 45100
WASHINGTON—Executive 36481
MEXICO CITY—10-4800
GALVESTON—5-8536
CLEVELAND—Prospect 1-7827

AIR CONDITIONED
TELEVISION • RADIOS



ALLIED PRODUCTS STEEL

STEEL BUILDINGS

Built Quicker . . . To Last Longer . . .

. . . But They Cost Less

- **Customed Engineered**
- **Can Be Furnished Insulated**
- **Constructed of Std. Sections**
- **100% Salvage**

Experience and sound engineering are the best foundation for steel buildings. Consult ALLIED STEEL before you buy!

WRITE FOR ALLIED'S NEW NO. 200 CATALOG

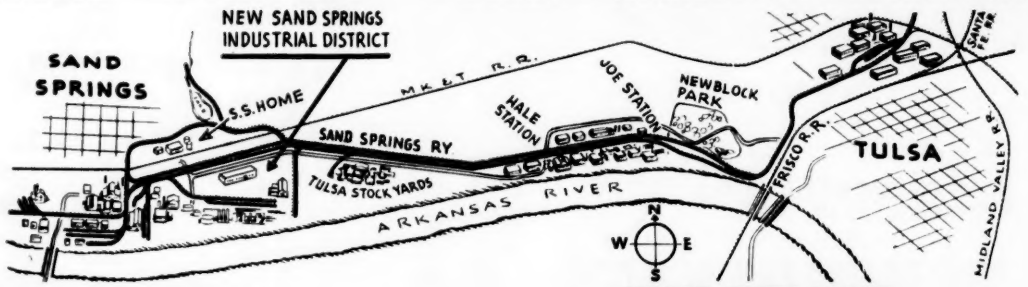
ALLIED STEEL Buildings are constructed of standard sections ideal for any of your building needs. When you buy an ALLIED building you have a structure that can be lengthened, shortened—or moved—with almost 100% of the original material salvaged. They're built to last a long, long time, quickly erected anywhere, but they cost less because they're custom built from inexpensive standard sections. ALLIED STEEL buildings can be furnished insulated or with asbestos covered roofs.

ALLIED STEEL PRODUCTS CORP.

2100 N. LEWIS TULSA, OKLAHOMA

Nearly 100 Industries Selected Oklahoma's

SAND SPRINGS—TULSA Industrial District!



WHO THEY ARE . . .

Commander Mills, Inc., South West Box Co., Kerr Glass Mfg. Corp., American Smelting and Refining Co., Southwest Porcelain Steel Corp., Pedrick Laboratories, Inc., Orbit Valve Co., National Tank Co., Frank Wheatley Pump and Valve Mfr., Lock Joint Pipe Co., General Paint Corp., American Steel and Wire Co., Bethlehem Steel Co., Lincoln Electric Co., Southwest Steel Corp., Standard Magnesium Corp., Standard Aluminum Co., Enardo Mfg. Co., Sheffield Steel Corp., The Boardman Co., Youngstown Steel Products Co., Mo-Vi, Inc., Boyles Galvanizing Co., Stanley Home Products Co., Santa Fe Engineering and Equipment Co., The Fibercast Corp., Graver Tank & Mfg. Co. and many others.

WHAT THEY MAKE . . .

Products manufactured and distributed in the national market (many of them exported) by the Sand Springs-Tulsa area companies include Textiles, Fruit Jars, Corrugated Boxes, Zinc Products, Steel, Electric Fixtures, Chemicals, Canned Foods, Janitor Supplies, Meat Products, Petroleum Products, Dog Food, Porcelain Enameled Steel, Paints and Varnishes, Building Materials and many others.

WHY? FACTORY SITES • TRACKAGE • WAREHOUSES • ABUNDANT WATER • NATURAL GAS • ELECTRIC POWER • SATISFACTORY LABOR-LIVING CONDITIONS • COMPLETE BELT-LINE FREIGHT SERVICE — Direct connections with Frisco, Santa Fe, Katy and Midland Valley Railroads.

Write for Complete Information

SAND SPRINGS HOME INDUSTRIAL DEPT., SAND SPRINGS, OKLA.

Dallas Plant Receives Big Aircraft Order

DALLAS. Chance Vought Aircraft, Incorporated, has received an initial Navy production order of approximately $100,000,000 for its F8U-1 Crusader jet fighter.

Details of the contract for deliveries of the Crusader, described as "the world's fastest Navy fighter," were not disclosed.

The experimental prototype XF8U-1 made its first flight last March 25, exceeding the speed of sound in level flight. The first F8U-1 production model flew on September 30 and the Crusader is now in production in the Dallas plant.

The single-jet F8U-1 was designed for faster-than-sound operation from aircraft carriers, improving further the Navy's capabilities for control of the air in areas of sea operations. Specifications called for a high rate of climb, exceptional combat ceiling and penetration of the speed of sound in level flight.

The speedy fighter is powered by the afterburner-equipped Pratt & Whitney J-57-P-12 turbo-jet, a proven engine with fuel economy required to give the Crusader the long endurance required in carrier operations.

The slender, sweptwing fighter combines this powerful engine and a trim airframe to achieve the greatest possible speed consistent with shipboard operating requirements.

Chance Vought was given a development contract for the Crusader after winning a design competition in which eight airframe manufacturers participated.

The Dallas aircraft company, whose airplanes have been operating from Navy ships since the earliest days of Naval aviation, also builds F7U-3 twinjet Cutlass fighters and Regulus guided missiles for the Navy.

South Leads Nation In Sulfur Output

Production and consumption of U. S. sulphur—in keeping with the high rate of industrial activity — reached new records in 1955.

Production of this versatile mineral increased to an estimated 6,900,000 long tons in 1955, or 250,000 tons more than last year, while domestic consumption plus exports rose 400,000 tons to an estimated 7,100,000 tons, according to Langbourne M. Williams, president of Freeport Sulphur Company.

Most of the new production came from the salt dome deposits of Louisiana and Texas mined by the Frasch hot water process. These mines—the major source of U. S. sulphur—produced an estimated 5,700,000 tons compared with 5,515,000 tons in 1954. Of the balance of the supply, 390,000 tons represented sulphur recovered from gases, 400,000 tons sulphur contained in pyrites, and 410,000 tons sulphur in various forms from other sources.

Since sulphur is used extensively throughout industry and agriculture, the rise in sulphur production and demand reflects the general high level of the U. S. economy, Mr. Williams said.

Sulphur is essential in the production of chemicals, fertilizers, newsprint, paper, steel, rubber, rayon, paint, gasoline, textiles, aviation fuel, lubricants and many other products.

The increased supply of sulphur stems from a stepped-up expansion program begun some five years ago. Since mid-1951, seven new Frasch process mines have been placed in operation and numerous projects have been added to recover sulphur in various forms and from other sources including sour natural gas, refinery gases, smelter gas, pyrites and surface deposits.

Plans for development of one new sulphur deposit were announced during the year and exploratory drilling was conducted in several areas.

The new deposit, known as Lake Pelto, is located in the shallow waters off the Louisiana coast about 60 miles southwest of New Orleans. It lies beneath 6 to 8 feet of water and is separated from the open Gulf only by a narrow strip of land. Freeport is working on plans to install a mining plant and other facilities which will mark the first attempt at mining a sulphur deposit entirely under water and in an area where no land whatever exists.

A second known deposit, plans for the development of which have not yet been announced, is Block 18 of Humble Oil and Refining Co. The dome is some 6 miles off the Louisiana shore and under 40 feet of water.

Ornamental and Industrial
PERFORATED METALS
We carry a large stock for immediate shipment.
Send for Our Catalogue
Manhattan Perforated Metal Co., Inc., 43-17 37th St., L. I. City, N. Y.

INVESTIGATE
DAYTON, TENNESSEE
EAST TENNESSEE—38 MI. N. CHATTANOOGA
SOU. RY. MAINLINE SVC. — CHOICE SITES — SOFT WATER
— SURPLUS LABOR — COMMUNITY PARTICIPATION
BROCHURE — CHAMBER OF COMMERCE — BOX 9, DAYTON

GLAMORGAN
PIPE & FOUNDRY CO.
LYNCHBURG, VA.

Bristol Steel & Iron Works, Inc.
DESIGNERS — FABRICATORS — ERECTORS
STRUCTURAL STEEL
For Buildings, Bridges and All Industrial Purposes
BRISTOL, VIRGINIA-TENNESSEE
Capacity: 1500 to 2000 tons per month.

QUALITY HOT DIP GALVANIZING
JOSEPH P. CATTIE & BROTHERS INC.
2520 East Hagert Street
Phone: RE 9-8911 Philadelphia 25, Pa.

Tank Builders for over 50 years.
SOUTHLAND Steel Products
Elevated Tanks, Smokestacks, Standpipes, Flumes, Stainless and Aluminum Fabrication, Bins, Vats, Kettles, Kiers.
CHATTANOOGA BOILER & TANK CO., Chattanooga, Tenn.

★ THE SOUTH'S HONOR ROLL ★

HERE ARE THE FAR-SIGHTED FIRMS AND INSTITUTIONS WHICH HAVE JOINED FORCES TO SUPPORT THE SASI PROGRAM FOR THE BENEFIT OF ALL THE CITIZENS OF THE REGION

INSTITUTIONAL MEMBERS

Ala. Dept. of Agri. & Ind., Montgomery
Anniston Chamber of Commerce, Anniston, Alabama
Auburn Research Foundation
Bureau of Business Research, University of Texas, Austin
Duke University
Emory University
Fla. State Adv. Commission, Tallahassee
Herty Foundation, Savannah
Howard College
Industrial Service Bureau, Columbia, S. C.
Ky. Agri. & Ind. Dev. Bd., Frankfort
Kentucky Research Foundation
SAMUEL KRESS FOUNDATION
La. Dept. of Commerce & Industry
Medical College of Virginia
Mississippi Southern College, Hattiesburg
Mississippi State College
Miss. State Game & Fish Comm., Jackson
N. C. Dept. of Cons. & Development
N. Miss. Industrial Devel. Assn.
Oak Ridge Inst. of Nuclear Studies
Oklahoma A & M College
Oklahoma City Chamber of Commerce
Panama City Chamber of Commerce, Fla.
Geo. Peabody College
South Carolina Water Pollution Control Authority, Columbia, S. C.
EDGAR STERN FAMILY FUND, New Orleans
Tulane University
University of Alabama
University of Florida
University of Miami
University of Mississippi
University of Oklahoma
University of Tampa
Va. Div. of Planning & Economic Devel.
Va. Polytechnic Inst., Blacksburg

INDUSTRIAL MEMBERS

ALABAMA POWER CO., Birmingham
Albany Oxygen Co., Albany, Ga.
ALLIED CHEMICAL & DYE CORP., New York
A. S. Aloe Co., St. Louis
Aluminum Co. of America, Rockdale, Tex.
AMERICAN CAST IRON PIPE CO., Birmingham
American Conditioning House, Boston, Mass.
American Enka Corp., Enka, N. C.
AMERICAN NATL. BANK, Mobile
AMERICAN TOBACCO CO., Richmond
American Trust Co., Charlotte, N. C.
Arthur Anderson & Co., Atlanta
H. Reeve Angel & Co., New York
The Anniston Star, Anniston, Ala.
Appalachian Electric Power Co., Roanoke
THE ARUNDEL CORP., Baltimore
Asheville Citizens-Times Co., Asheville, N. C.
Atlantic Greyhound Corp., Charleston, West Virginia
Atlantic Research Corp., Alexandria, Va.
Atlantic Scientific Corp., Orlando, Fla.
John M. Avent & Associates, Inc., Atlanta
Babcock & Wilcox Co., Atlanta, Ga.
The Bank of Georgia, Atlanta
A. M. Barlow, Realtor, Wildwood, Fla.
Barnes, Askew, Mills & Co., Atlanta
BIRMINGHAM TRUST NATIONAL BANK, Birmingham
Biscayne Chemical Laboratories, Inc., Miami
Cabot Carbon Company, Gainesville, Fla.
Cameron & Barkley Co., Charleston
Carbide & Carbon Chemical Corp., N. Y.
Cardinal Products, Inc., Durham
Carolina Ford Tractor Co., Charlotte
Carolina Power & Light Co., Raleigh
Celanese Corp. of America, Bishop, Texas
Central of Georgia Railway Co., Atlanta
The Chattanooga Times, Chattanooga
The Chemstrand Corp., Decatur, Ala.
THE CITIZENS & SOUTHERN NATIONAL BANK, Atlanta
CITIZENS & SOUTHERN NATIONAL BANK, Columbia
THE COCA-COLA COMPANY, Atlanta
Columbia-Southern Chemical Corp., Corpus Christi, Texas
Columbia-Southern Chemical Corp., Lake Charles, La.
Combustion Engineering-Superheater, Inc., Chattanooga
Commercial National Bank, Daytona Beach
CONTINENTAL TURPENTINE & ROSIN CORP., Laurel, Miss.
W. H. Curtin Co., New Orleans
Davison Chemical Corp., Baltimore
DeBardeleben Coal Corp., Birmingham
Dinkler-Tutwiler Hotel, Birmingham
Dow Chemical Company, Atlanta
Dow Chemical Co., Texas Div., Freeport
E. I. DUPONT DE NEMOURS & CO., INC., Wilmington
Edmundson-Duhe Rice Mill Co., Rayne, La.
Eimco Corp., Birmingham, Ala.
Electric Research Corp., Atlanta
Employers Insurance Co. of Alabama, Birmingham
Ernst & Ernst, Atlanta
ETHYL CORPORATION, Baton Rouge
Evening Post Publishing Co., Charleston
Experiment, Inc., Richmond
Fernwood Industries, Fernwood, Miss.
Filtrol Corp., Jackson, Miss.
First Research Corp. of Florida, Miami
First National Bank, Atlanta
FIRST NAT'L BANK OF BIRMINGHAM
First National Bank in Waycross, Ga.
Fisher Body Division, GMC, Atlanta
Fisher Scientific Co., Silver Spring, Md.
Florida Power Corporation, St. Petersburg
Florida Power and Light Company, Miami
Fla. State Chamber of Commerce, Jacksonville
The Florida Times-Union, Jacksonville
Floridin Co., Tallahassee, Fla.
L. B. Foster Co., Atlanta
FULBRIGHT LABORATORIES, INC., Charlotte
FULTON NATIONAL BANK OF ATLANTA
General Motors Corp., Doraville, Ga.
GEORGIA POWER COMPANY, Atlanta
GEORGIA POWER AND LIGHT CO., Valdosta, Ga.
Greene Brothers, Inc., Dallas
GRIFFIN GROCERY CO., Muskogee, Okla.
Gulf, Mobile & Ohio R. R. Co., Mobile
Gulf Oil Co., Atlanta
Gulfport Fertilizer Co., Gulfport, Miss.
GULF POWER COMPANY, Pensacola
Guthrie Investment Co., St. Petersburg
HARSHAW CHEMICAL CO., Cleveland
Hercules Powder Co., Hattiesburg, Miss.
Hercules Powder Co., Inc., Wilmington
Hudson's Dept. Store, Anniston
Ideal Fishing Float Co., Inc., Richmond
Ingalls Shipbuilding Corp., Pascagoula, Miss.
INTERNATIONAL BUSINESS MACHINES CORP., New York
JEFFERSON ISLAND SALT CO., Louisville, Ky.
KERR-McGEE OIL INDUSTRIES, INC., Oklahoma City
Kewaunee Mfg Co., Adrian, Mich.
KIMBLE GLASS CO., SUBSIDIARY OF OWENS-ILLINOIS GLASS CO., Toledo
Kinston Free Press Co., Inc., Kinston, N. C.
Koppers Co., Port Arthur, Texas
Kraft Equipt. Co., Savannah
Labline, Inc., Chicago
Arthur S. La Pine & Co., Atlanta
LAUREL OIL AND FERTILIZER CO., Laurel, Miss.
Law & Co., Atlanta
Lawyers Title Insurance Co., Richmond
Liggett & Myers Tobacco Co., Durham, N. C.
Liller, Neal, and Battle, Atlanta
Lion Oil Company, El Dorado
Long-Lewis Hardware Co., Bessemer, Ala.
Louisiana Power & Light Co., New Orleans
Louisville and Nashville Railroad Co., Louisville
Masonite Corp., Laurel, Miss.
MATHIESON CHEMICAL CORP., New York
McCall Manufacturing Co., Easley, S. C.
McKesson & Robbins, Inc., Birmingham
MEMPHIS PUBLISHING CO., Memphis
Merchants National Bank, Mobile
Metal-Katcher Co., Louisville
Miller and Rhoades, Inc., Richmond
Minis & Co., Savannah
Mississippi Chemical Corp., Yazoo City
MISSISSIPPI POWER CO., Gulfport
MISSISSIPPI POWER & LIGHT CO., Jackson
MISS. VALLEY GAS CO., Jackson
Monsanto Chemical Co., Anniston
Monsanto Chemical Co., Texas City, Tex.
Nashville, Chatt. & St. R. R. Co., Nashville
Nat'l Fruit Produce Co., Winchester, Va.
Newman, Lynde & Associates, Inc., Jacksonville
NEW ORLEANS PUBLIC SERVICE, INC., New Orleans
Newport Industries, Inc., Pensacola, Fla.
Newport News Shipbuilding & Drydock Co., Newport News, Va.
The News & Courier Co., Charleston
Norfolk and Western Railway Co., Roanoke, Virginia
Oklahoma Gas & Electric Co., Okla. City
Pan-Am Southern Corp., New Orleans
PEMCO CORP., Baltimore
Philip Morris Co., Ltd., Richmond, Va.
Charles H. Phillips Co., Gulfport, Miss.
PHIPPS & BIRD, INC., Richmond
PLANTATION PIPE LINE CO., Atlanta
Powhatan Mining Co., Baltimore, Md.
Wm. P. Poythress & Co., Richmond
The Progressive Farmer, Raleigh
RALSTON PURINA COMPANY, St. Louis
Reynolds Metals Co., Arkadelphia, Ark.
Richards & Assoc., Inc., Carrollton, Ga.
Rittenbaum Bros., Atlanta
Riverside Oil Mills, Marks, Miss.
A. H. Robins Co., Richmond
RUST ENGINEERING CO., Birmingham
SAVANNAH SUGAR REFINING CORP., Savannah
Seaboard Air Line R. R. Co., Norfolk
SEARS ROEBUCK & CO., Atlanta
Shell Chemical Corp., Atlanta
Shenandoah Life Ins. Co., Roanoke
Sherwood Refining Co., Gretna, La.
Smith-Douglas Co., Inc., Norfolk
Snively Groves, Inc., Winterhaven, Fla.
SOUTH CAROLINA ELECTRIC & GAS CO., Columbia
South Carolina Natl. Bank, Columbia
South Fla. Test Service, Miami
Southdown Sugars, Inc., Houma, La.
Southeastern Clay Co., Aiken, S. C.
SOUTHERN BELL TEL. & TEL. CO., INC., Atlanta
Southern Natural Gas Co., Birmingham
SOUTHERN STATES EQUIPMENT CORP., Hampton, Ga.
Southland Co., Yazoo City, Miss.
Southland Paper Mills, Inc., Lufkin, Texas
Spencer Chemical Co., Vicksburg
STATE PLANTERS BANK & TRUST CO., Richmond, Va.
Tampa Electric Co., Tampa
Taylor & Caldwell, Inc., Walkerton, Va.
TELLEPSEN CONSTRUCTION CO., Houston
TENNESSEE COAL & IRON, Fairfield, Ala.
Tennessee Corp., College Park
Tennessee Corp., New York
Tenn. Light and Power Co., Springfield, Tenn.
Tenn. Products & Chemical Corp., Nashville
Texas Gulf Sulphur Co., Newgulf, Texas
The Thomas Ala. Kaolin Co., Baltimore
Times-World Corp., Roanoke
TRUST COMPANY OF GEORGIA, Atlanta
Union Bag & Paper Corp., Savannah
UNION PLANTERS NATIONAL BANK, Memphis
UNION TRUST CO. OF MARYLAND, Baltimore
United Gas Pipe Line Co., Shreveport
Valentine Co., Richmond
Virginia-Carolina Chemical Co., Richmond
VIRGINIA ELECTRIC & POWER CO., Richmond
R. A. Wade, Chattanooga
West Point Mfg. Co., Shawmut, Ala.
West Va. Pulp & Paper Co., Charleston
WESTERN ELECTRIC COMPANY, Winston-Salem, N. C.
WHITNEY NATIONAL BANK OF NEW ORLEANS
Wilkerson, Cochran & Huebsch, Eustis, Fla.
Will Corp. of Georgia, Atlanta
Wilson Paper Box Co., Richmond
Wise Motor Co., Hazlehurst, Miss.
WOLVERINE TUBE, Decatur, Ala.
Zep Manufacturing Company, Atlanta, Ga.

AFFILIATED ORGANIZATIONS

Alabama Academy of Science
Arkansas Academy of Science
Florida Academy of Science
Georgia Academy of Science
Mississippi Academy of Science
N. C. Academy of Science
Oklahoma Academy of Science
Tennessee Academy of Science
Virginia Academy of Science

* Italic face type indicates sustaining members.

NOTE: Any firm doing business in the South is eligible for membership in SASI. For detailed information and membership application blank contact SASI Headquarters, Conway Bldg., North Atlanta 19, Ga.

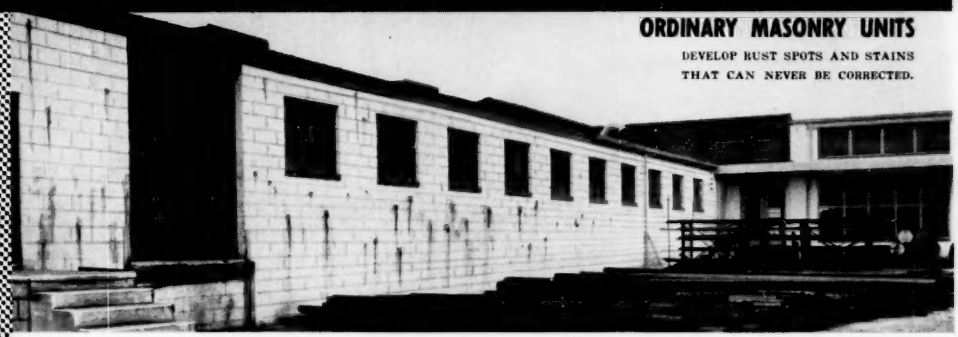
SOLITE LIGHTWEIGHT UNITS

ARE CHEMICALLY INERT—WILL NEVER RUST OR STAIN.

Build with SOLITE® and avoid this headache!

ORDINARY MASONRY UNITS

DEVELOP RUST SPOTS AND STAINS THAT CAN NEVER BE CORRECTED.



Photographs of two wings of the same building. Owner's name supplied upon request.

SOLITE® Masonry Units will never rust or stain. This single feature, which Solite's controlled manufacturing process *guarantees*, saves owners thousands of dollars in maintenance cost yearly. Rust spots and staining of ordinary units will bleed through several coats of paint in a matter of a few months . . . a condition that can not be permanently corrected.

SOLITE® because of its controlled manufacturing process, also guarantees masonry units that are . . . EXTRA LIGHT—yet extra strong . . . FIRE RESISTANT . . . SOUND ABSORBERS—extra quiet . . . NATURAL INSULATORS—lower heating and cooling costs . . . TERMITE PROOF. In addition Solite masonry units hold nails without chipping and their smooth, uniform texture offers unlimited design possibilities.

Yes, you avoid building headaches when you build with SOLITE. Consult your local Block Manufacturer about these money saving advantages of building with Solite Lightweight Masonry Units.

REMEMBER — Architects and engineers are professional advisors. Regardless of what type of construction you are interested in, consult them. They will be glad to help you build better.

SOLITE®

PLANTS: Aquadale, N. C., Bremo Bluff, Va.

OFFICES: P. O. Box 205, Richmond, Va., P. O. Box 1843, Charlotte, N. C.

MANPOWER AND EVERY OTHER INDUSTRIAL ADVANTAGE, TOO!

MANPOWER

Besides labor surplus, Florida has a Constitutional Amendment stating "The right of persons to work shall not be denied or abridged on account of membership or non-membership in any labor union, or labor organization."

"The St. Petersburg area is classified as a Class III area by the Bureau of Labor Statistics, meaning that a surplus of qualified workers in every category can be found here. Our active file numbers approximately 4,000 qualified workers seeking employment through this office within the past 30 days; the new applicants seeking the advantages of living in St. Petersburg number well over 1,000 per month for the last 18 months; and approximately 500 high school students entering the labor market each year."

Robert C. Simmons, Local Office Manager
FLORIDA STATE EMPLOYMENT SERVICE

ALLSTATE INSURANCE COMPANY

MILTON ROY COMPANY

BABCOCK - WILCOX

CLIMATE and LOCATION

2,600 new residents move to Florida each week knowing they will live happier, healthier lives. In St. Petersburg the sun shines not less than 350 days a year. With unsurpassed wholesome recreational facilities, it is truly a city in which work and play are profitably combined.

"I have personally flown over these entire United States and have found no place that, from my plane, looks more beautiful than St. Petersburg, or that offers more combined advantages for working and living. This climate provides our employees with opportunity to enjoy a better balance between work and play. Most of us are hard core lovers of sun and recreation. Why not build the plant in a climate where our employees can spend their non-working hours in healthful relaxation and play?

We have also carefully investigated the elements of cost and climate for business growth. Our purchasing agent visited here for approximately one month, and submitted a most comprehensive report covering his findings. While potential suppliers are not as plentiful as they are in our Philadelphia area, we could find no serious obstacles from the standpoint of supply."

R. T. Sheen, President
MILTON-ROY COMPANY

PAN LAMINATES

FUTURONICS

CREST MANUFACTURING COMPANY

ADVANTAGES

NO State business tax, income tax or inheritance tax. Real estate taxes are low! Power and water are adequate. Excellent banking and financing facilities. A wide variety of transportation facilities. Excellent schools! Well diversified industrial services for both manufacturing and marketing.

"One of the most important reasons we decided on St. Petersburg, was the genuine interest on the part of everyone plus the zeal of your Chamber of Commerce to have Allstate move into this very attractive and prospering community.

The business factors which influenced our choice of St. Petersburg included central location, fine transportation, the bright prospects for a continuing well-balanced increase in industrial and commercial growth, excellent school, church and shopping facilities, and the numerous recreational and cultural activities available."

Judson C. Branch, Senior Vice President
ALLSTATE INSURANCE COMPANY

ST. PETERSBURG CHAMBER OF COMMERCE

JACK BRYAN, Industrial Director
ST. PETERSBURG • FLORIDA

WRITE FOR COMPLETE INFORMATION AND INDUSTRIAL BROCHURE

UNIVERSITY OF FLORIDA president J. Wayne Reitz (right) told AAAS delegates that the progress of the South is inevitably linked with agricultural advancement. Looking on at left is Cherry L. Emerson, well known Atlanta consulting engineer.

RESEARCH KEY TO SOUTH'S FUTURE, SODAY TELLS NATIONAL MEETING

ATLANTA. This Southern city was the scientific headquarters of the world during the last week of December, as the American Association for the Advancement of Science held its annual meeting here. More than 5,000 scientists from throughout the nation and several foreign countries attended.

Some 1,500 technical papers, covering a tremendous variety of topics, were presented in the course of the meeting. Press coverage was afforded by more than 50 correspondents, including one reporter from a Sydney, Australia, newspaper, and several from London.

While most reports dealt with basic research studies, several were of special interest in the South.

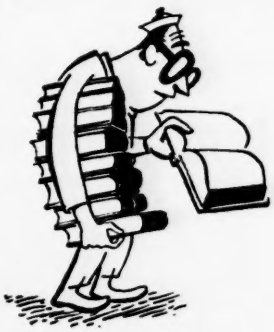
A highlight of the industrial science section's program was a luncheon address by SASI President Frank J. Soday. He spoke on "The Increasing Importance of Science and Technology in Southern Industry."

Soday pointed out that the South's recent industrial surge is largely the product of research. He attached particular significance to the fact that the South "is now rapidly increasing its research and development facilities to insure its future growth and to maintain its leadership in the highly technical industrial operations which play so important a part in the Southern economy."

"This, rather than the vast expansion in manufacturing facilities, is the real revolution in the South," Dr. Soday said.

Another speaker discussing the economy of the South was Dr. J. Wayne Reitz, President of the University of Florida. Dr. Reitz stressed the point that the Southern economy can be improved substantially by improving agricultural land use.

"Small farms, which are so typical in many sections of the Southeast, have generally shown a sluggish response to technological change," the Florida educator said, adding that "the problem of



TAKE YOUR PICK!

With each new subscription to MANUFACTURERS RECORD you may select gratis any $5 item or three $1.50 items below. Just check the items you want and return with your subscription order. Free publications you select will be mailed immediately.

☐ **Southern Industrial Directory, 1952 edition,** lists some 3,000 plants valued at $1 million or more, indexed alphabetically, geographically, and by product. Give name of key executive, approx. number of employees, home office. Reference section lists several hundred development groups, advertising consulates, business publications, research agencies, government offices, foreign trade institutes, trade associations, and other data sources in the South. 60 pp., 11 x 11. $5. SID-52.

☐ **Southern Industrial Directory, 1953 edition,** lists approximately 12,500 manufacturers employing 50 or more, classified by product, approx. number of employees. Includes, for example, 229 baking firms, 123 box and crate manufacturers, 208 fertilizer plants, 377 hosiery mills, 161 meat packers, 191 publishing plants, 149 steel fabricators, 270 yarn mills, 130 makers of work clothing. 84 pp., 11 x 11. $5. SID-53.

☐ **The South in 1975, full text of report of** Southern Association of Science and Industry to the 1954 Southern Governors' Conference, estimating industrial growth of South over next 20 years. SCI-JF-55. $1.50.

☐ **Directory of Southern manufacturers of** soaps, cleaners, polishes, and related products, lists more than 400 plants, name of key executives, approx. number of employees. Personnel practices in Southern chemical plants. SCI-ND-54. $1.50.

☐ **Directory of Southern manufacturers of** paint, varnish, and protective coatings, lists some 300 plants, name of key executives, approx. number of employees. SCI-SO-54. $1.50.

☐ **Directory of engineering data sources, lists** more than 500 data sources, such as technical and scientific publications of government agencies, professional societies, trade associations, and commercial publishers throughout nation. 64 pp. Issued in 1948 and originally priced $2.50. Now $1.50. DED-48.

CHECK AND MAIL TODAY

MANUFACTURERS RECORD
Conway Bldg., North Atlanta 19, Ga.
Enter my subscription for:

☐ 2 yrs. at $5 ☐ 1 yr. at $3

Name .....

Address .....

☐ Check enclosed ☐ Bill my firm

poor resource utilization is further aggravated because the low income realized by many small operators is inadequate to allow for capital accumulation and maintenance."

Reitz offered as a solution to the problem a more intensive research program aimed at "sifting out the most promising economic alternatives open to Southern agriculture." Concluding, he said "the most productive research may come from seeking the new and unique rather than in improving upon what is already being done."

Comprehensive reports on the South's mineral and water resources were given by Robert A. Laurence and E. L. Hendricks of the U.S. Geological Survey. Laurence mentioned promising new geochemical exploration techniques which may lead to important new mineral discoveries in the South, while Hendricks stressed the importance of proper water conservation.

Varied Investigations

Other reports presented to the conference covered a wide variety of sciences and professions. For example, one group told of the discovery of a cave system in Kentucky which is larger than any now known in the world.

Professor H. W. Straley, of Georgia Tech, reported the mapping of magnetic attractions over a large part of the Southeast. When his survey is completed within a few months it will cover Florida, most of Georgia and South Carolina, and part of North Carolina.

Straley doesn't know what he has found yet, but he is enthusiastic about possibilities. Veins of iron have been followed for miles in Georgia. The coastal plains show many areas in which magnetic attraction changes in an unusual manner. In South Carolina there is one area of remarkably high activity.

Another worker, Ralph Singleton, of the University of Virginia, told of the use of radiation in plant breeding studies. He described experiments in which radiation was used to render plants disease-resistant for long periods.

"It is interesting to consider the development of a type of American Chestnut resistant to the chestnut blight that almost made this species extinct" Singleton said. He said seeds have been planted and small chestnut trees will be planted in a radiation area on the Blandy Experimental Farm near Charlottesville.

THIS STRIKING new reading room and library has been added for the research staff of Dowell, Inc., in Tulsa. Major fields are chemistry, engineering and metallurgy.

"Food Physics" Topic Of Meet Mar. 15-16

SAN ANTONIO. Plans are being completed here for a nationwide symposium on food physics, to cover the application of physical principles to food research and production. And, since food processing industries are among the most important in the South, the program is expected to have unusual regional significance.

Sponsored by Southwest Research Institute here, the meeting is to be held in cooperation with the Institute of Food Technologists, a national organization. All sessions will be held at the Plaza Hotel here March 15 and 16.

Recent advances in electronics, nuclear engineering and other specialized fields in physics have just begun to make their effects felt in the food processing industry. The food industry, whose technology in the past has been drawn primarily from chemistry and chemical engineering, is now turning to the physical sciences for the new tools and techniques that will be required in the food processing plants of tomorrow.

Radically different methods of processing or preserving foods may come from the research now being carried out in the fields of radiation sterilization, ultrasonics, and radiofrequency heating; and new physical methods for the non-destructive measurement of process variables offer promise for the eventual automatization of much of the food processing industry.

The purpose of this symposium is to review the progress that has been made in this new field of technology which is called "Food Physics" and to discuss some of the promising new developments in the physical sciences which can be applied profitably to problems in food research and production. It is hoped that this first Symposium on Food Physics will stimulate further progress in that direction.

The advance programs follows:

Thursday, March 15

8:00 A.M. Registration, Plaza Hotel

9:00 A.M. *Welcome*
H. Vagtborg, President, Southwest Research Institute.
L. E. Clifcorn, President, Institute of Food Technologists.

9:15 A.M. "40 Fields of Physics: Their Importance to the Food Industry"
P. M. Erlandson, Director of Physics Research, Continental Can Co., Chicago, Ill.

10:00 A.M. "Rapid, Non-Destructive Analysis of Liquids and Solids by Magnetic Resonance Absorption"

T. M. Shaw, Senior Research Physicist, Southwest Research Institute, San Antonio, Texas.

10:45 A.M. "Vapor Phase Chromatography—A New Method for the Separation and Identification of Volatile Materials in Foods"
K. P. Dimick, Chemist, and J. Corse, Chemist, Western Utilization Research Branch, U. S. Department of Agriculture, Albany, California.

1:30 P.M. "Applications of Physics in the Meat Industry"
D. M. Doty, Assistant Director Research & Education, American Meat Institute Foundation, Chicago, Illinois.

2:15 P.M. "Measurement of Crystallization in Foods"
A. Cornwell Shuman, Assoc. Professor of Food Chemistry, Purdue University, Lafayette, Indiana.

3:00 P.M. "Application of Physics to Studies of Breadmaking Quality of Wheat"
I. Hlynka, Chemist, Grain Research Laboratory, Winnipeg, Manitoba, Canada.

3:45 P.M. "Measurement of Quality in Food and Agricultural Commodities by Physical Methods"
K. H. Norris, Agricultural Engineer, Marketing Research Division, USDA, Beltsville, Maryland.

7:30 P.M. Banquet, Plaza Hotel

8:30 P.M. Address (Topic and speaker to be announced)

Friday, March 16

9:00 A.M. "Food Processing with Ultrasonics"
Quentin C. McKenna, Research Physicist, Hughes Aircraft Co., Culver City, California. (Formerly President, McKenna Labs, Inc.)

9:45 A.M. "The Potential Role of Nuclear Reactors in Food Processing"
R. J. Beeley, Senior Engineer, Atomics International, a Division of North American Aviation, Inc., Canoga Park, California.

10:30 A.M. "Effect of New Instrumentation on Modern Chemical Plant Operation. Can Recent Developments in Instrumentation and Automatic Control Solve Important Problems in the Food Industry?"
V. F. Hanson, Assistant Director, Engineering Research Laboratory, Experimental Station, E. I. duPont de Nemours & Co., Wilmington, Delaware.

11:15 A.M. "Round-table Discussion"
All speakers participating.

11:45 A.M. Concluding Remarks
J. P. O'Meara, Manager, Chemical Physics, Southwest Research Institute. Southwest Research Institute Grounds.

1:00 P.M. Barbecue Luncheon

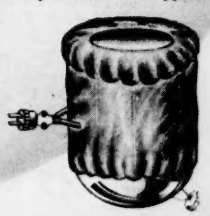
2:00 P.M. Tour of Southwest Research Institute

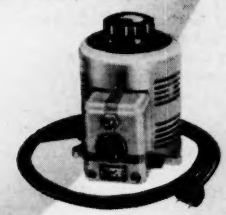
3:00 P.M. Adjournment

ACE REACTION FLASKS

ALL HEADS INTERCHANGEABLE WITH ALL BOTTOMS

Large Necks for ease of cleaning. • Heads available with ℨ or spherical joints. • One Clamp fits all capacities. • Capacities and Types to meet every need.





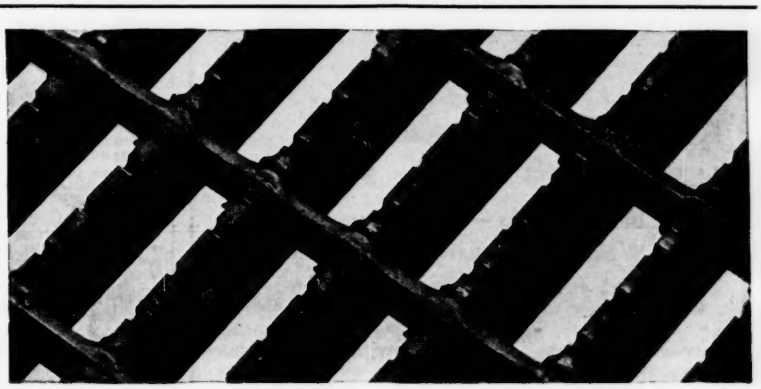
Wide Range of Glas-Col Heaters and Powerstats available from Ace.

The Original Ace TRUBORE STIRRERS and Stirring Motors in stock for immediate shipment.

FOR REACTION FLASK EFFICIENCY AND ECONOMY YOU CAN RELY ON ACE

Write Dept. RF-R for Brochure

ACE GLASS INCORPORATED
VINELAND ◆ NEW JERSEY
LOUISVILLE, KY., 639-41 SOUTH HANCOCK ST.
Glassware Specialists to Industry and Research



New Slip-Proof Design makes

Gary SERRATED GRATING safest

WHERE GOOD TRACTION IS IMPORTANT

Indoors or out, for area gratings in sidewalks, inclined walkways, fire escapes—wherever safe-footing is important, this one-piece, resistance-welded grating will provide safer working conditions. It's tailor-made to your requirements. Write for descriptive Catalog MR-16.

FREE SAMPLE
We'll send this handy paper weight if you request it on your company stationery.

Standard Steel Spring Division
ROCKWELL SPRING AND AXLE CO.
4001 East Seventh Avenue • Gary, Indiana

BOOKS AND REPORTS

Ed. Note. The following is a list of new books and reports recently received in the RECORD editorial office. Orders or requests for copies should be directed to the sources indicated.

Problems and Control of Air-Pollution, edited by Frederick S. Mallette, Proceedings of 1st International Congress on Air Pollution, Reinhold Publishing Corp., 430 Park Avenue, New York 22, 1955, 272 pp., $7.50.

Hawley's Technical Speller, by Gessner G. Hawley and Alice W. Hawley, Reinhold Publishing Corp., 430 Park Ave., New York 22, 1955, 146 pp., $2.95.

Cotton Growing Problems, by Basil G. Christidis and George J. Harrison, McGraw-Hill Book Company, Inc., 330 W. 42nd St., New York 36, N. Y., 633 pp., $9.75.

Labor Laws of Texas, Texas Manufacturers Association, P. O. Box 2512, Houston, Oct. 1955, 34 pp., $.15.

No Limit on Tomorrow, address presented by Thomas B. McCabe before the Investment Bankers Association of America Convention, Dec. 1, 1955, Drexel & Co. 9 pp.

Directory of Wage Surveys, U. S. Dept. of Labor, Bureau of Labor Statistics, 50 7th St., N. E., Atlanta 5, 1955, 12 pp.

Industries for Which the Bureau of Labor Statistics Prepares Productivity Reports, U. S. Dept. of Labor, Bureau of Labor Statistics, Washington 25, 1955, 3 pp.

Who Owns Our Forest Land? Southern Pulpwood Conservation Association, 1224 Peachtree St., N. E., Atlanta 9, 1955, 2 pp.

Demands of U. S. Families, 1960 Variety, by Arthur Rosenbaum, *Georgia Business,* Vol. 15, No. 5, Nov. 1955, University of Ga., Athens, Ga., 8 pp.

Kyanite Recovery at Baker Mountain, Va., by M. P. Corriveau, *Mineral Industries Journal,* Virginia Polytechnic Institute, Blacksburg, Vol. 2, No. 4, Dec. 1955, 4 pp.

Proceedings of the Eighteenth Annual Short Course, For Water and Sewerage Plant Superintendents and Operators, March 16, 17, 18, 1955, Engineering Experiment Station Bull. No. 53, La. State University, Baton Rouge, La., 202 pp.

Pressure Treated — Timber Foundation Piles—Economies, Advantages, by W. D. Keeney, Ralph H. Mann, C. M. Burpee, American Wood Preservers Institute, 111 W. Washington St., Chicago 2, Ill., 1955, 66 pp.

Manufacturing Employment in Arkansas 1939-1954, by Orville J. Hall, University of Arkansas, Little Rock, Ark., Aug. 1955, 19 pp.

Employment in Non-Manufacturing Industries in Arkansas 1939-1954, by Orville J. Hall, University of Arkansas, Little Rock, Ark., Aug. 1955, 17 pp.

Small Cobalt Charges Are Eliminating Guess Work on Coking Unit at El Dorado Refinery, *The Pan-Am Southerner,* P. O. Box 2, New Orleans 6, La., Dec. 1955, 2 pp.

Selected Statistics From the Farm Census of Arkansas 1954 and Prior Years, prepared by Arkansas Economic Council, State Chamber of Commerce, 120 East 2nd St., Little Rock, 2 pp. chart 18 x 27 inches.

Texas' Biggest Untapped Market: 1,000,000 Latin Americans, *Texas Business Review,* Vol. 29, No. 12, The University of Texas, Austin, Dec. 1955, 3 pp., $.20.

Effectiveness of Flooring Nails in Plywood Subflooring, by E. George Stern, Virginia Polytechnic Institute, Blacksburg, Dec. 1955, 6 pp.

The Tennessee Highway Research Program—A Progress Report, by E. A. Whitehurst, Tennessee Highway Research Program, Tenn. Dept. of Highways and Public Works, Knoxville, Sept. 1955, 12 pp.

Population Movements in the Southern United States, by Homer L. Hitt, La. State University, Baton Rouge, La., presented at the annual meeting of the American Association for the Advancement of Science, Atlanta, Ga., Dec. 28, 1955, 15 pp.

You and the Instrument Industry, by Scientific Apparatus Makers Association, 20 N. Wacker Dr., Chicago 6, Ill., Dec. 1955, 16 pp.

Southern Pine Industry Faces Challenge, *Monthly Review,* Federal Reserve Bank of Atlanta, Ga., Nov. 30, 1955, 3 pp.

Proceedings of the Ninth Annual Meeting of the Industry-Faculty Conference of Louisiana, March 31-April 1, 1955, Engineering Experiment Station, Bull. No. 52, La. State University, Baton Rouge, 79 pp.

Industrial Research Laboratories in Virginia, Virginia Division of Planning and Economic Development, 301 State Finance Bldg., Richmond 19, Va., 1955, 20 pp.

Neighborhood and Suburban Shopping Areas, Richmond Chamber of Commerce, 15 North 6th St., Richmond 19, Va., 1955, 2 pp.

Transportation of Southwest Oil, by Jack D. Colclough, *Monthly Business Review,* Federal Reserve Bank of Dallas, Texas, Dec. 1, 1955, 8 pp.

Buffalo TANKS

"SERVING THE SOUTH"

Storage tanks — Pressure vessels
Welded steel plate construction

BUFFALO TANK CORPORATION

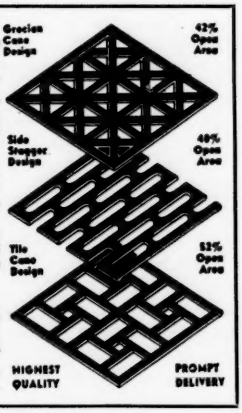
Plants operating at
BALTIMORE, MARYLAND — CHARLOTTE, NORTH CAROLINA
JACKSONVILLE, FLORIDA — RALEIGH, NORTH CAROLINA

PERFORATED METALS
FOR EVERY INDUSTRIAL USE

The "Ornamental" light-gauge designs here illustrated are only a few of the many you can choose from in our new Catalog 39 and we are always pleased to quote on original designs or special work of any kind.

For larger unit-openings, using metals up to ¼" in thickness, we offer a wide variety of equally attractive designs in our Catalog 36 on Diamond Architectural Grilles.

Send us your blueprints. We are equipped to fabricate special sections to any desired extent and welcome opportunities to make money-saving suggestions.



DIAMOND MANUFACTURING CO.
Box 42 WYOMING (Wilkes-Barre Area) PENNA.

Sales Representatives in all principal cities. Consult Your Classified Telephone Directory.

HIGHEST QUALITY — PROMPT DELIVERY

PERFORATED METALS

For every purpose, Industrial and Ornamental

Steel, Stainless Steel, Monel Metal, Brass, Copper, Bronze, Aluminum, Zinc, Lead, Tin Plate and all other metals or materials perforated as required, and for all kinds of screens. Send for new Catalog.

CHARLES MUNDT & SONS
488 Johnston Ave., JERSEY CITY, N. J.

EPPINGER & RUSSELL CO.

WOOD PRESERVERS SINCE 1878

80 EIGHTH AVENUE
NEW YORK 11, N. Y.

Clean Pressure Treated
TIES — POLES — PILING — LUMBER

CREOSOTE
SALT TREATMENTS

TREATING PLANTS

JACKSONVILLE, FLA. • EDDINGTON, PA. • NORFOLK, VA.

E. H. Whittaker has been named an industrial agent for the Seaboard Air Line Railroad, according to an announcement by **Warren T. White,** assistant vice president in charge of industrial development for the railroad. His headquarters are in Norfolk.

Henry Groppe, formerly with Monsanto Chemical Company's Plastics Division, has joined **Joseph R. Mares** in his practice as an industrial chemical consultant with offices in Houston. Mr. Groppe is a member of SASI.

Gerard T. Shannon has been elected vice president of Walter Kidde Engineers Southwest, Inc., with headquarters in Houston. This is a division of Walter Kidde Constructors, Inc., of New York.

Temco Aircraft Corporation of Dallas has named **E. C. Curry** to head a new planning group designed to promote new utilization of the company's electronic computing and recording equipment. Temco Vice President **Clyde Williams** said the new Data Processing Planning Group will help keep the company abreast of the most recent developments in the use of electronic equipment in modern business.

David J. Gent, a veteran of 22 years in the steel business, has been added to the sales staff of Connors Steel Division in Birmingham to handle the sale of cold finished bars. Connors Steel is a division of H. K. Porter Company, Inc.

Oliver E. Beutel, traffic manager of the Dow Chemical Company's Texas Division at Freeport since 1943, has been advanced to the newly created position of manager of distribution and traffic with company-wide responsibilities. Beutel will coordinate the distribution of Dow chemicals from all divisions to markets in this country and overseas.

District Engineer **James C. Johnson** of Oklahoma City has joined the headquarters staff at The Asphalt Institute in College Park, Maryland, as staff engineer. He will be primarily concerned with problems in asphalt engineering and soil stabilization.

The promotion of **Carl O. Skoggard** to assistant manager of production at the Covington, Virginia mill of West Virginia Pulp and Paper Company has been announced. His duties include the general direction of all production activities, technical services, engineering, maintenance and construction.

KENNETH H. GAYLE, JR. has been elected president of Delta Tank Manufacturing Company, Inc. of Baton Rouge, succeeding Hal S. Phillips who has been named chairman of the board. Gayle formerly served as president of Ingalls Iron Works of Birmingham.

SHOWN AT THE DEDICATION of Georgia Tech's new electronoic computer system in Atlanta are (left to right) Richard H. Rich, president of Rich's, Inc.; Tech Student Council President George W. Harris; C. L. Keenoy, vice president of National Cash Register Company; Atlanta Mayor William Hartsfield; and Howard H. Aiken, head of the Harvard University Computation Laboratory.

John A. Sherred has assumed the post of director of development of the newly created Development Section of Lion Oil Company. **Frank L. Emert** was promoted to director of the new Engineering Section. Both sections are within the company's manufacturing department.

Retirement of **Henry Fleming Payne** from American Cyanamid Company to become Research Professor in charge of instruction and research on Organic Coatings in the Department of Chemical Engineering at the University of Florida has been announced.

Paul M. Gross, vice president and dean of Duke University, Durham, was elected Vice Chairman of the Board and Chairman of the Executive Committee of the National Science Foundation at the regular end-of-the year meeting of the National Science Board.

Announcement has come from Fruehauf Trailer Company of the appointment of **William E. Grace** as vice president. Mr. Grace was formerly executive vice president and general manager of Hobbs Manufacturing Company of Fort Worth, a division of Fruehauf.

T. H. Pierson, former assistant maintenance director of Corn Products Refining Company, has joined Eggelhof Engineers, Inc., of Houston as vice president. Mr. Pierson is heading one of the process divisions and also assisting in overall management of the company.

George G. Barbee has been appointed general industrial agent for the Central of Georgia Railway with headquarters in Atlanta. His former position as general industrial agent for the Nashville, Chattanooga, and St. Louis Railway, has been filled by **R. H. Nicholas.**

Announcement has been made by **R. P. Jobb,** assistant vice president of Atlantic Coast Line, of the appointment of **R. J. Councill** as Industrial Geologist with office at Wilmington, N. C.

Texas Instruments president, **J. E. Jonsson,** has announced the promotion of **Mark Shepherd, Jr.,** from assistant vice president to vice president in charge of the Semiconductor Products Division of Texas Instruments. His headquarters are in Dallas.

W. K. McCready, Director of Manufacturing for Velsicol Chemical Corporation, has announced the appointment of **F. E. Richardson** as assistant manager of the Memphis plant. Richardson formerly was Chief Engineer in charge of expansion design and construction projects.

Announcement has been made of the appointment of **R. L. Hock** as manager of American Cyanamid Company's Fortier Plant at New Orleans. He was formerly assistant plant manager.

K. C. Loughlin, vice president and general manager, Textile Division, Celanese Corporation of America, today announced the promotion of **Dr. Bruce B. Allen** to the position of technical director with headquarters in Charlotte, N. C. He will supervise research and process development activities.

James W. Aston has been elected executive vice president of the Republic National Bank of Dallas, according to announcement by **Karl Hoblitzelle,** Chairman of the Board, and **Fred F. Florence,** president of Republic.

Mighty big shoes to fill!

Yes, being the largest industrial citizen in the district, we realize that we have some mighty big shoes to fill. But long ago, we accepted the responsibilities that go with industrial leadership. Regardless of the size of the shoes, we shall continue to make an honest and sincere effort to fill them.

In doing so, one of our great assets is the more than 25,000 men and women of TCI. Good citizens all, these are your kind of people. They are people who love their homes, their neighborhoods and their work. They support their local civic clubs and serve them well. They give freely of their time, money and effort in community drives. They maintain a keen interest in the affairs of government. They take their place beside you in church on Sunday morning.

We accept, with deep humility and a fair sense of pride, the fact that TCI affects the lives of more people than appear on our wage sheets. For the vast majority of our many workers are family people, and this means we have been a source of livelihood for something like 100,000 citizens in our industrial area. Toward this end, TCI paid out during 1955 an estimated $143,000,000 in the form of wages, salaries, and other benefits such as life and health insurance and pensions. Most of this income from your TCI neighbors passed back into the trade channels of Jefferson County—and thus participated, in a very substantial way, in all phases of local business.

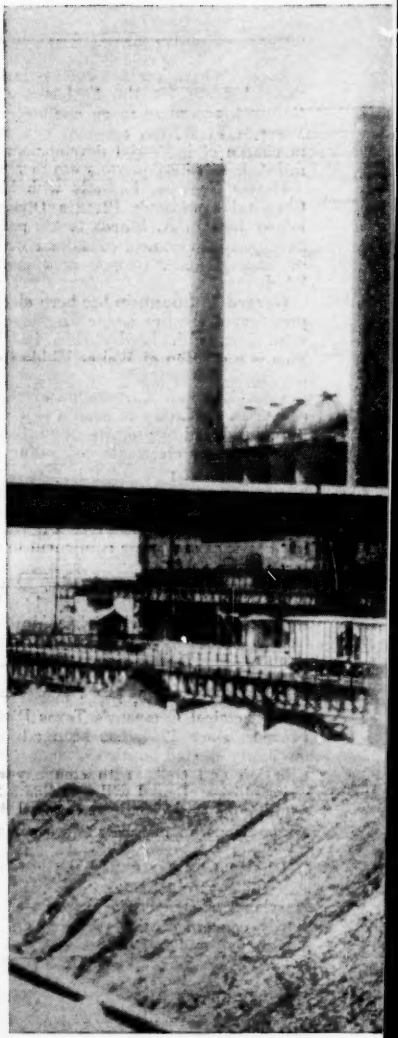
An Alabama industry supports other Alabama industries

But that isn't the whole story in dollars and cents. Because we are manufacturers, we must buy raw materials, operating and maintenance equipment, etc. As a customer, we spent in Alabama last year, alone, some $22,000,000 for goods and services. Each of these dollars helped provide income for our suppliers and job security for their employees. And, in keeping with our size, we have paid substantial amounts in taxes for support of the local, state and national governments which serve us all.

Just as we have earnestly attempted to fill our obligations to our employees and suppliers, we are endeavoring to conduct our affairs so as to merit the continued trust and friendship of all of our other associates in Alabama, whether they be customers or neighbors and fellow citizens.

We shall continue to try, not only to fulfill the needs of our 4,000 customers, but to satisfy the needs of new customers. Our dependency upon our customers, the citizens and governments in those communities we reach is fully recognized. Our future ability to meet our obligations is necessarily keyed to the social and political atmosphere in which we live and work.

As a large industrial organization with stable employment and production, and ethical business dealings, we believe that our existence here exerts a beneficial influence upon economic and civic affairs of our community.

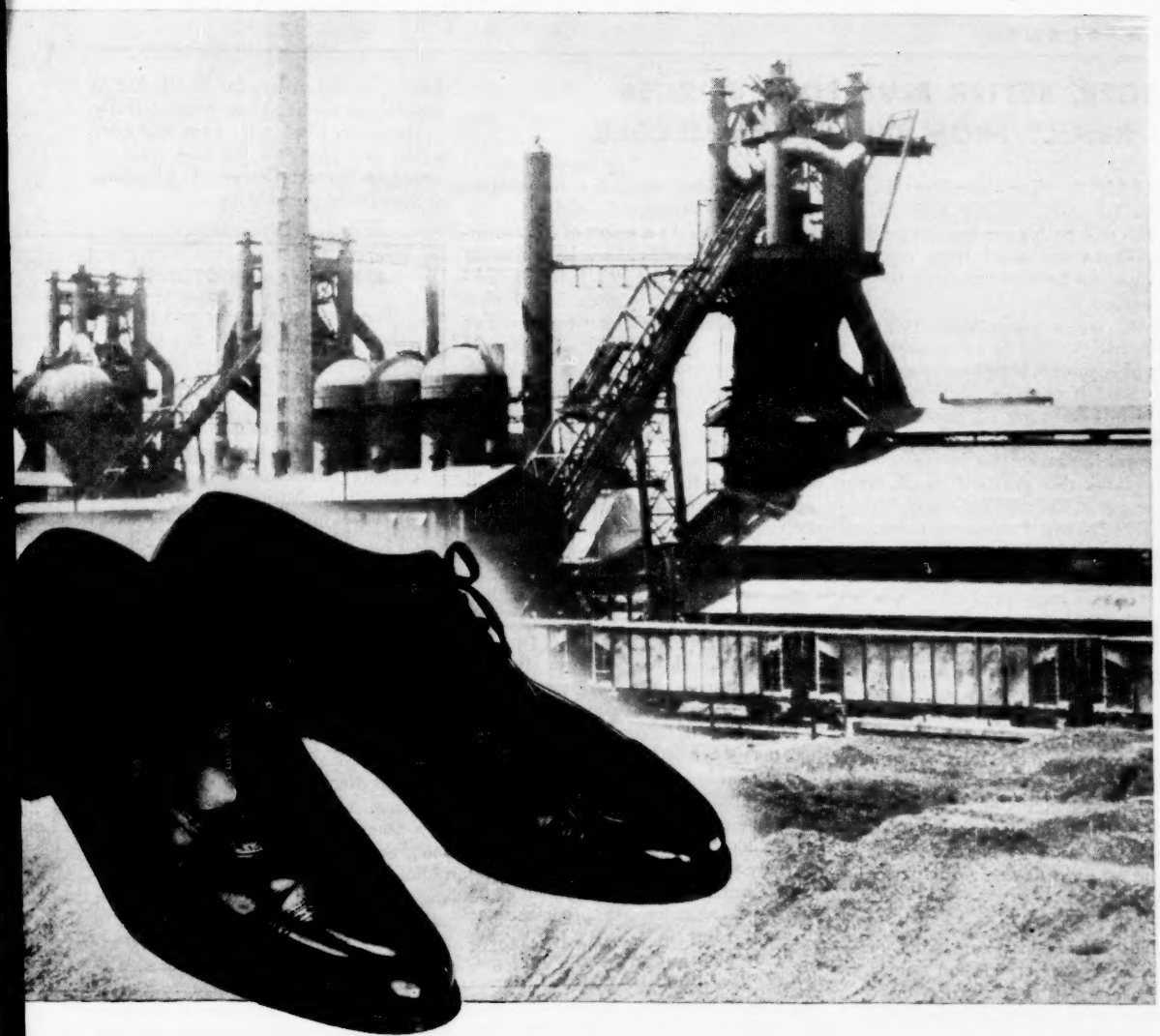


But we also believe that merely being here and conducting business here are not enough. We feel bound to exercise all the leadership we can muster in helping make the Birmingham area and our Southern trade territory an even better place in which to live and work. In achieving these objectives, we want to cooperate with our forward-thinking neighbors in every way possible.

People work together better when they know each other

Since neighbors work together better when they know each other well, we hope to get better acquainted.

UNITED STATES



This is why we have set up a public visitation program at our Fairfield Steel Works. Tens of thousands of our friends have already come to visit with us. They have seen at first hand how we take the ore, coal and stone from this district's rich mineral deposits and convert them to steel . . . which, in turn, is converted into income that provides wages and salaries for our employees, taxes for all levels of government, and payment for those who sell us many types of goods and services.

We are proud to have shown guests from all over the nation a sample of Alabama's vigorous and growing business activity. It has been even more gratifying to welcome a great number of local people—our next-door neighbors—into our industrial home.

Perhaps no visitors have given us greater pleasure, however, than students, who came to supplement textbook knowledge with actual observation of industry in action. Comprising over three-fourths of our total number of visitors, they have been doubly welcome because they are the people who tomorrow will be running our businesses and directing the affairs of our state. If we can help in any way to prepare them for the responsibilities ahead, then we feel that we are contributing to the future of our state and country—insurance, if you please, that our social and political atmosphere will continue healthy.

You, too, are cordially invited to participate in our public visitation program during 1956. Just call our Public Relations offices and they will take care of all arrangements.

We think you will find that though we have big shoes, we fill them well, and our friendship is just as warm and sincere as that of the folks next door.

A. V. Wiehe

President
TENNESSEE COAL & IRON DIVISION

TENNESSEE COAL & IRON
DIVISION
UNITED STATES STEEL CORPORATION
GENERAL OFFICES: FAIRFIELD, ALABAMA
DISTRICT OFFICES: CHARLOTTE • FAIRFIELD
HOUSTON • JACKSONVILLE • MEMPHIS
NEW ORLEANS • TULSA

UNITED STATES STEEL EXPORT COMPANY
NEW YORK

USS TRADE MARK

S T E E L

BIGGER, BETTER BLUE BOOK FOR '56 TO RESULT FROM DIRECTORY MERGER

ATLANTA. The familiar BLUE BOOK OF SOUTHERN PROGRESS in 1956 will be bigger and better than ever. That's the word from editorial headquarters here as deadline for the new edition nears.

Issued continuously since 1909 the BLUE BOOK affords an annual summary of economic activity in the Southern states. It contains sections detailing trends in each of the Southern states.

Several improvements in the content of the Book this year will result from the merger of the publications of Manufacturers Record Publishing Company with those of Conway Publications which took effect January 1. Among these changes are:

► The SOUTHERN INDUSTRIAL DIRECTORY previously issued by Conway will be combined with the BLUE BOOK. Thus each state section of the BLUE BOOK will include, in addition to economic data, an index of major industries in the state.

► The physical size of the BLUE BOOK will be increased. The next edition will appear in standard 8½ x 11 format, permitting increase in the amount of information which can be carried.

► The total circulation will be substantially increased. Whereas the guaranteed minimum circulation has been 10,000 copies, it is likely that the distribution of the next edition will approach 15,000.

All of which means that the familiar BLUE BOOK will be improved in usefulness and effectiveness. In fact the publishers hope within the next few years to make it a veritable encyclopedia of information about the industrial South.

As usual the BLUE BOOK will be published in the Spring. The deadline for information and advertising is March 30.

Caldwell R. Walker, who has compiled the economic data for the BLUE BOOK for the past 10 years, is now hard at work refining the content of the new edition. Walker has been retained by Conway Publications as full-time economic consultant and Washington editor.

Walker spends a large part of his time in Washington conferring with statisticians and economists in the various federal agencies to develop estimates of economic activity for the BLUE BOOK. As a result of his familiarity with survey methods he is usually able to insert in the BLUE BOOK tabular material which often is not elsewhere available for many months. For example, the 1956 BLUE BOOK will provide accurate estimates of 1955 business activity even though many federal reports on the subject will not be released until late this year.

In addition to the more extensive state sections the new BLUE BOOK will include a manufacturers index listing major Southern manufacturers by type of product made. This new feature will follow the standard industrial classification system and should be particularly helpful in market research and purchasing studies.

There will also be an introductory section summarizing the industrial progress of the South during the preceding year. Altogether it is expected that the BLUE BOOK will provide the best available overall picture of Southern economic progress.

Under a new plan of distribution each RECORD subscriber will automatically receive one copy of the BLUE BOOK gratis. Additional copies may be ordered in advance, with special rates for bulk orders.

All circulation records for the BLUE BOOK have been moved to Atlanta and subscribers may rest assured that their orders will be handled according to previous instructions. Those who have standing orders for BLUE BOOK copies will receive them automatically.

However, those who have questions about any phase of the new plan are urged to contact Conway Publications at the earliest possible date.

PARTNERS IN PROGRESS—the BLUE BOOK OF SOUTHERN PROGRESS, established in 1909, will henceforth include the SOUTHERN INDUSTRIAL DIRECTORY, which was launched in 1952. The first joint edition will be released this spring.

A Plug From FORTUNE

The RECORD's editor and publisher, H. M. Conway, Jr., got a nice plug in the January issue of *Fortune* which named him as "A Man To Watch in Atlanta."

The item was first in a new series which will identify up-and-coming businessmen in all sections of the Nation. The RECORD was very much pleased to have its editor selected as the first subject on the *Fortune* list.

Du Pont Seeks Site For "Orlon" Plant

WILMINGTON, Del. The Du Pont Company disclosed early in January that a project was under study for the building in Waynesboro, Va., of a large new plant for the manufacture of "Orlon" acrylic fiber. If authorized the plant would be in addition to the existing extensive facilities there for making acetate yarns.

The company said it is studying expansion of facilities to produce "Orlon." "If these studies are favorable there is a possibility of locating in Waynesboro a plant which would produce 40,000,000 pounds of 'Orlon' annually," the company said.

If the project goes through, it would boost the company's production of "Orlon" staple and tow to approximately 100,000,000 pounds a year.

The company emphasized that construction funds have not yet been authorized and that it would be several months before the results of the studies were known.

At present all "Orlon" is produced commercially at the company's plant at Camden, S. C., but it was pointed out that the main research effort on the fiber is still centered in Waynesboro. "Some of the very early work on 'Orlon' was done there in the Benger Laboratory; in fact the first pilot plant which produced 'Orlon' was located there," the company said.

Since its commercial introduction in

1952, "Orlon" has become an important factor in the textile market, its greatest initial demand coming from the knitwear field.

"This wide acceptance of 'Orlon' in sweaters and other knitwear," the company said, "has encouraged development of other market areas such as women's suitings, coatings, dresswear, men's suitings, slacks, and children's outerwear. All these things point to new markets and an anticipated increase in demand which prompted this study for increased production facilities."

Carolina Materials Firm Plans Second Expansion

AQUADALE, N. C. Construction is under way for another new addition to the Carolina Solite Corporation's plant here. In making this announcement, A. Cabell Ford, Director of Sales for the parent company, Southern Lightweight Aggregate Corporation, pointed out that this is the second major expansion program undertaken during the past 12 months.

This new program, which will include another new rotary kiln, making a total of four, also calls for additional crushing and processing equipment, and will increase production by 35%. It is expected that these new facilities will be completed and ready for operation by the end of March, 1956—just in time to make additional materials available to Southern construction with the up-swing of Spring building.

The growth of the Carolina Solite plant in so short a time is due to the growing demand for this versatile building material. Solite, the manufactured, controlled lightweight aggregate is being more and more widely used in place of sand, gravel and crushed stone in the production of structural concrete and lightweight masonry units.

Structural concrete is 1/3 lighter when made with Solite, which is a boon to builders who employ the more modern techniques such as lift-slab, tilt-up, and multi-story construction. Savings in deadweight through the use of Solite permits a minimum of supporting trusses, columns and footings.

In the case of Solite, masonry units which are ½ lighter than ordinary concrete units, the lighter weight gives greater ease in handling. Because of the carefully controlled manufacturing process, Solite units are fireproof, rust and stain proof, sound absorbing and are natural insulators. Nails can be driven into Solite blocks without fear of chipping or cracking.

The lighter weight of Solite, whether it be used in structural concrete or masonry units, substantially reduces the cost of both materials and labor. Additional savings are also realized when the versatile masonry units are used for both exterior and interior design. Unlimited variations in design and pattern are made possible, offering to the designers a wider scope for their talents.

A few examples of Solite in use are: Belk's Department Store in Charlotte; the coliseum at North Carolina State College in Raleigh; the dormitories of Duke University in Durham. The Chesapeake Bay Bridge, and the Capitol roof in Washington, D. C., are other projects of interest in which this outstanding product, Solite, has been used.

Carolina Solite Corp., with offices in the Liberty Life Building, Charlotte, is a subsidiary of Southern Lightweight Aggregate, Richmond, Va. Southern Lightweight Aggregate also has in operation at Bremo Bluff, Va., the largest light-weight aggregate plant in the world producing this manufactured controlled product.

New Plant Summary

The following is a summary of major industrial plants reported to the RECORD during the month of December 1955. This information has been checked with the Southern Association of Science and Industry and various state development agencies.

Number of employees is indicated by the code: A (under 25); B (25-100); C (100-250); D (250-1000); and E (over 1000).

ALABAMA

Huntsville—American Machine and Foundry Co. have under consideration an experimental underground industrial plant.

Huntsville—P. R. Mallory Co., Inc. (Plant #2), P. R. Hufnagle, Vice Pres., molybdenum materials. Completion est. mid-1956. (C).

Leeds—Anderson Brass Works, Inc., aluminum. Completion est. March 1956.

Opelika — Opelika Manufacturing Co., clothing. $500,000. (D).

ARKANSAS

Batesville—J. K. Sutherland, Inc., poultry processing. $150,000. (C).

Little Rock—Hoerner Boxes, Inc. (Keokuk, Iowa), corrugated paper board. $500,000.

Pine Bluff—Dierks Paper Company, McFadden Road, Fred M. Dierks, Jr., Vice Pres., kraft paper. Completion est. September, 1957. (C).

Rogers—Rogers Corrugated Box Co., shipping containers.

FLORIDA

Brewster—American Cyanamid Co. (New York City), K. C. Towe, Pres., triple superphosphates. Construction to begin early 1956 with operation est. to begin mid-1957.

Jacksonville—Benjamin Moore and Co., paints. Operation est. to begin early 1956.

Orlando—Chiefland Screen Products Co., aluminum screens. Operation to begin 1956.

Orlando—Halco Products, Inc. of Fla., processing and distribution of orange juice.

GEORGIA

Abbeville—Abbeville Mfg. Co. announced plans for a plant to manufacture children's clothing.

STEEL Every Kind Quick Delivery

BARS—carbon & alloy, hot rolled & cold finished, drill rod, Ry-Ax for axles, etc.

STRUCTURALS — beams, channels, angles, etc.

PLATES—Many types including, abrasion resisting, Inland 4-Way Safety Plate, etc.

SHEETS—hot & cold rolled, many types & coatings.

TUBING—mechanical, boiler and structural.

REINFORCING—bars & access.

BABBITT METAL

MACHINERY & TOOLS

Joseph T. Ryerson & Son, Inc. Plants at: New York • Boston • Wallingford, Conn. • Philadelphia • Charlotte, N. C. • Cincinnati • Cleveland Detroit • Pittsburgh • Buffalo • Chicago • Milwaukee • St. Louis Los Angeles • San Francisco • Spokane • Seattle

RYERSON

Announcing the

Sartorius PROJECTA

NEW ULTRA-MODERN

TWO PAN

ANALYTICAL BALANCE

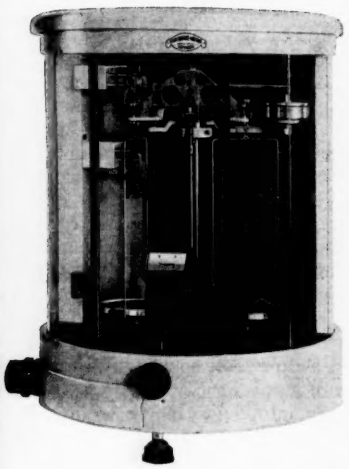
•

Here is the first TRULY NEW double pan balance in years

•

RAPID MODEL

$595.00



NEW: — All metal circular housing — Circular sliding doors — Built-in weights to 10 gr. — Simple piston type adjustable dust proof AIR DAMPER, stops oscillation instantly — Table level dial for built-in weights — Extra large weighing compartment for bulky objects — Permanent Center Pane, protects vital parts against body radiation and breath — Built-in swivel type drawer for additional weights.

Unmatched speed and convenience of operation

No Chains! No beam riders! — Projection Screen

CHOICE OF 3 MODELS

"RAPID"—Cap. 200 grams—1/20 mg. sensitivity

"STANDARD"—Cap. 200 grams—1/40 mg. sensitivity

"SEMI MICRO"—Cap. 100 grams 1/100 mg. sensitivity

For more detailed information, write to

HALCO SCIENTIFIC INSTRUMENT CO.

957 Springdale Road, N.E. Atlanta 6, Georgia

Your Dependable Source* . . . For Quality

METALS

Aluminum Alloys, Babbitt Metals, Pig Lead,
Brass Ingots, Lead Alloys, Pig Tin, Tin Alloys
Type Metals, Slab Zinc, Specification Alloys

***HYMAN VIENER & SONS**

P. O. Box 573

RICHMOND 5, VIRGINIA

NEW PLANTS

Griffin—The Schnable Co., steel dump truck bodies, refrigerated truck bodies. (C).

Hartwell—Monroe Auto Equipment Co. (Monroe, Michigan), B. D. McIntyre, Pres., power steering equipt., sway bars, shock absorbers, and related products. $2 million. Completion est. March, 1956. (D).

Jasper—Nunnally and McCrea Co. (Atlanta), clothing.

KENTUCKY

Augusta—Clopay Corp. (Cincinnati), plastic film.

Calvert City—Air Reduction Sales Co. (Div. of Air Reduction Co., New York City), nitrogen and argon. Completion est. Spring, 1956.

Maysville—Du Pont Co. has acquired a 900-acre site for future construction of a general-purpose chemical plant.

LOUISIANA

Baton Rouge—W. R. Grace Co. (New York). $18 million polyethylene plant under consideration.

Gramercy—Kaiser Aluminum and Chemical Corp., aluminum. $60 million. Construction est. to begin April, 1956 with operation to begin July, 1957. (D).

New Orleans—The Food Machinery and Chemical Corp. Phosphorus plant under consideration.

Norco—Shell Chemical Corp. (New York City), R. C. McCurdy, Pres., methyl ethyl ketone. Completion est. early 1957.

Springhill—Arizona Chemical Co. (New York City), Richard E. Sumner, Pres., tall oil products.

MISSISSIPPI

Belzoni—Coopers of Mississippi, Inc., men's underwear. (D).

Byhalia—Byhalia Brick and Tile Co., bricks. $500,000. Operation began late 1955. (B).

Maben—Wearing apparel concern. (C).

Meridian—Mick-Jon Mfg. Co., ladies' wearing apparel. Completion est. early 1956. (B).

Ruleville—Ruleville Manufacturing Co., jackets. (C).

Summit—Summit Mills (Subs. of McComb Mfg. Co.), nylon and rayon products. In operation December, 1955.

NORTH CAROLINA

Asheville—C. P. Clare Co., electric switches.

Brasstown—Gustave Lidseen, Inc., tools, pipe bending equipt.

Durham—Southern Machine Company, metal fabrication.

Gastonia—Southeastern Precision Tool & Die Co., precision dies.

High Point—Fast Stitch Staple Co., staples.

High Point—Nachman Corp., metal springs

High Point—National Teletable Co., TV tables and lamps.

High Point—Nor-Lo Manufacturing Co., household furniture.

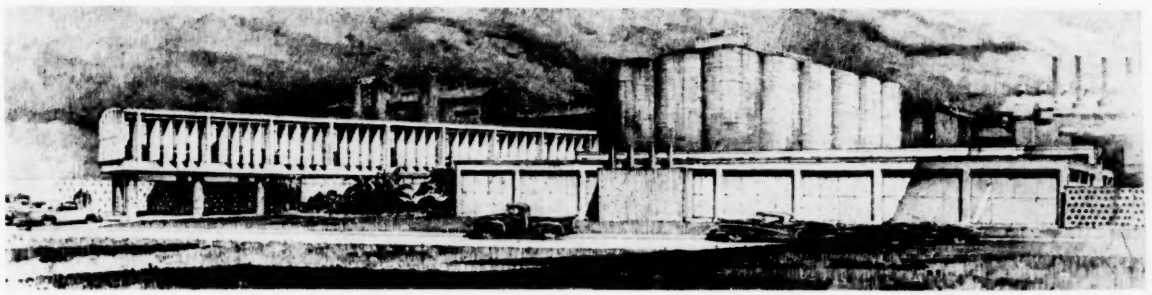
High Point—Pauls Manufacturing Co., upholstered furniture.

High Point—Thaden Molding Corp., Herbert Thaden, President, molded chair frames. Completion est. early 1956. $250,000. (B).

Plymouth—American Cyanamid Co. (New York City), liquid alum.

Rutherfordton—Wilson Textile Products, Inc., yarn specialties.

Warrenton—LaCrosse Sportswear Co., sport sweaters.



IDEAL CEMENT'S new plant at Mobile includes a modern process control laboratory. The project is now in the engineering stage.

SOUTH CAROLINA

Cheraw—Cherokee Batting Company, $20,000.

Greenville—Brewster Curtain Company, $100,000.

Greenville—Clement Brothers, quarry. $500,000.

Greer—Delagrave Company, $100,000.

Roebuck—Bennett Rose Company, $100,000.

TENNESSEE

Baxter—R. S. Roggen Co. (New York City), dress shirts. Completion est. March, 1956. (C).

Chattanooga—Chattanooga Textile and Machine Co., 2442 Broad Street, textile machine parts. In operation 1955.

Chattanooga—Ornamental Iron Sales Co., 6385 E. Brainerd Road, E. M. Templeton, Pres., fabricated iron products.

Chattanooga—Paco Knitting Mills, 1810 Rossville Blvd., sport shirts. In operation 1955. (B).

Columbia—Columbia Garment Co., N. Main Street, A. H. Warner, Pres., sport shirts. In operation 1955. (B).

Greenville—International Minerals & Chemical Corp., mica. $400,000. Construction began late 1955.

Jackson—Jackson Stave Co., S. Royal Street, whiteoak staves. In operation late 1955. (B).

Knoxville—Bob Cawrse Co., 2121 Dutch Valley Rd., salads. In operation 1956.

Knoxville—William Moore Mfg. Co., Dell Ave., solid wood furniture. In operation 1955. (B).

Lynchburg—Craig Gloves, Inc. (Tullahoma, Tenn.), dress gloves. Completion est. March, 1956. (B).

Memphis—Bluff City Ornamental Iron Works, Inc., 1233 Airways Blvd., K. H. MacAdams, Pres., fabricated ornamental iron.

Memphis—Hunter Fan and Ventilating Co. (Division of Robbins & Myers). Completion est. May, 1956. $750,000.

Memphis—Dixie Mills, Robert F. Deibel, Jr., Pres., livestock feeds. Completion est. May, 1956.

Memphis—Wright Mfg. Co., 1080 S. Cooper, Ralph H. Collins, Pres., aluminum awnings.

Murfreesboro — Western Condensing Co. (Appleton, Wisc.), Russell Webb, Mgr., condensed whey blocks. $250,000. In operation late 1955.

Nashville or Knoxville—Lambert Brothers, Walter Lambert, Pres., cement. $10-12 million plant under consideration.

Nashville—Boyles Galvanizing Co., 32nd Ave., N. (Tulsa, Okla.), William Boyles, Pres., fabricated steel articles. Completion est. early 1956. (B).

New Tazewell—Donlin Sportswear Co. In operation late 1955.

TEXAS

Nolan County — Hylton-Northwest-Seaboard, gas-injection plant. $500,000. In operation 1955.

Odessa—General Tire and Rubber Co. and El Paso Natural Gas Co. announce an agreement for a $multi-million synthetic rubber plant. Construction to begin early 1956 with est. completion July, 1957.

San Antonio—Howard Aero, Inc., International Airport, Landis Carr, Vice Pres., aircraft. Operation began December, 1955. $270,000. (D).

Texas—Texas Asphalt and Refining Co., on Houston Ship Channel, asphalt refinery. $1 million.

Tyler—Western Brass Co., plumbing brass goods and fixtures. Operation est. to begin February, 1956.

VIRGINIA

Hopewell—General Chemical Division, Allied Chemical and Dye Co. (New York City), liquid aluminum sulfate. Completion est. early 1956.

Orange—Rapidan Mfg. Co., David R. Vreeland, Pres., precision metal boxes, electrical housings. In operation 1955.

Port of Norfolk—The Nestle Company has purchased a tract for a $5-7 million coffee manufacturing plant.

Tappahannock — Textile manufacturing firm. (B).

WEST VIRGINIA

Elkins—Reidbord Brothers, apparel.

Fairmont—McDougal Manufacturing Co., aluminum die casting and automatic machines.

Institute—Goodrich-Gulf Chemicals, Inc., synthetic rubber. $11 million.

Progress Notes

► NEW ORLEANS. Louisiana State Auditor Allison R. Kolb has signed a $10 million bond issue paving the way for start of a $60 million expansion program for the dock facilities at the port of New Orleans here. The three-year program includes construction of new wharves at four points on the East bank and at two points on the West bank of the Mississippi.

► WASHINGTON. Nine southern firms have received permits entitling them, after security clearance, to use restricted data from the AEC. Included are: Greenwood County Electric Power Commission, Chappells, South Carolina; Hazleton Laboratories, Inc., Falls Church, Virginia; E. P. McLean Engineering Company, Moultrie, Georgia; University of Miami, Coral Gables, Florida; Ozark-Mahoning Company, Tulsa; Patchen and Zimmerman, Augusta, Georgia; Phillips Petroleum Company, Bartlesville, Oklahoma; Radiation Research Corporation, West Palm Beach, Florida; Seminole Electric Cooperative, Madison, Florida.

► MOBILE. Pan-Atlantic Steamship Corporation, a subsidiary of McLean Industries, Inc., has received a certificate of necessity for the construction of seven trailer ships at a total cost of $63 million.

► LAKE CHARLES, LA. Plans for a $4.3 million expansion program at the butadiene plant operated here by Petroleum Chemicals, Inc., have been announced by F. M. Simpson, vice president and general manager. Work will begin immediately and will be completed by next fall.

► NEW ORLEANS. A world's record for deep drilling was established during November at a well in Plaquemines Parish 35 miles Southeast of here. The well, being drilled by Richardson and Bass, John W. Mecom, and

Freeport Sulphur Company, had reached a depth of 22,209 feet—nearly 4.25 miles as of November 28.

► ALCOA, TENN. Aluminum Company of America has announced plans for a new 44-inch rolling mill here to augment existing facilities. Walter W. Wright, Alcoa official, said the project will cost more than $4 million and will take 18 months to complete.

► SHREVEPORT. The local plant of the American Creosoting Company has been purchased by Olin Mathieson Chemical Corporation according to an announcement from W. H. Brown, vice president. The new plant covers a site of 136 acres and is equipped with two 132-foot long creosoting cylinders.

► RUSK, TEXAS. A new plant being completed here by Corn Belt Hatcheries will produce more than 3 million baby chicks next year. The new facility includes five incubators each of which holds 65,000 eggs.

► HATTIESBURG, MISS. Speaking at the ground-breaking for the new $18 million Pontiac Eastern Refinery near here last month Mississippi's new Governor J. P. Coleman asserted that industry "will have nothing to fear and much to be thankful for at the hands of his administration."

► WASHINGTON, D. C. Senator Russell B. Long of Louisiana said "the inexhaustible supply of cooling water and the transportation facilities offered by the Mississippi River" were the determining factors in Kaiser Aluminum's decision to locate a $60 million plant at Gramercy, La.

► SAN JULIAN, CUBA. A new Aircraft Technical School has been established here under the supervision of the University of Tampa working with a $300,000 Point IV Program grant. Attending dedication ceremonies was Dr. Ellwood C. Nance, president of the University.

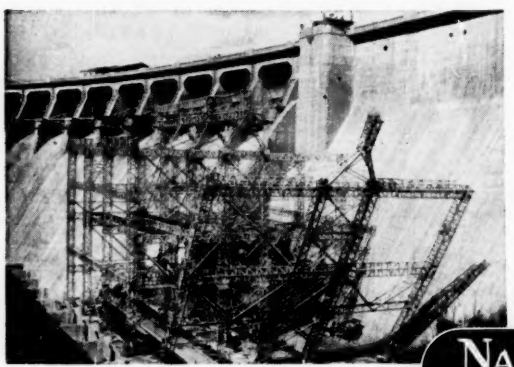
► HOUSTON. A sulphur discovery about six miles off the Louisiana Coast has been classified as one of the largest ever found by C. E. Reistle, Jr., vice president of Humble Oil and Refining here. The deposit was discovered during oil exploration tests off Grand Isle in 1954, but was not announced until recently.

► MARRERO, LA. Johns Manville Products Company is building a new floor tile plant here adjacent to its existing building products unit. The new two-story building will add 70,000 square feet of manufacturing space and will increase the annual payroll here by $350,000.

► OKLAHOMA CITY. Construction has begun on a new $4 million 17-story office building at the corner of Park Avenue and Harvey Street here. One of the largest downtown projects in recent times the new building is scheduled for completion early in 1957.

► RICHMOND. The first profit-sharing plan covering all employees, including seasonal workers, in a major cigarette company has been approved here by the stockholders of Philip Morris, Inc.

► NEW YORK. A new link between the money capital of the United States



THE Nashville Bridge Company will gladly quote on structural steel requirements anywhere in the South and Southwest. Our skill in the fabrication and erection of intricate steel structures is well-known. We are particularly qualified to supply the Power Distributing Industries with transmission towers and switchyard structures;—hot-dip galvanized after fabrication. Fabrication and erection of both steel and machinery for movable type bridges is a specialty. Look to Nashville for simple steel requirements as well as intricate structural jobs.

Plants and offices in Nashville, Tennessee and Bessemer, Alabama. We also own and operate the Bessemer Galvanizing Works—largest galvanizing plant in the South.

NASHVILLE BRIDGE COMPANY
NASHVILLE, TENN. — BESSEMER, ALA.

TRINITY INDUSTRIAL DISTRICT

"Under the Skyline of Dallas"

the new home of
RECORDAK
Corporation

For information about the Trinity Industrial District consult your real estate broker or . . .
INDUSTRIAL PROPERTIES CORP. 401 Davis Bldg., Dallas, RI-6552

and the South came into existence here last month with the official opening of the New York Service Office of the Citizens and Southern National Bank. The first operation of its kind established by a southeastern bank, the office was set up to strengthen financial relations between the East and South according to C & S president Mills B. Lane in Atlanta.

► INSTITUTE, W. VA. Goodrich-Gulf Chemicals, Inc., apparently is top bidder for the government-owned synthetic rubber plant here. The plant was built in 1942 at a cost of about $18 million and recent estimates gave it a book value of slightly more than $5 million. The sales price to Goodrich Gulf is approximately $11 million.

► NORFOLK. The Norfolk and Western Railway has announced plans for a new 110,000 square foot waterfront warehouse at Lamberts Point here. The improvement program will cost approximately $750,000.

► SAVANNAH. More than 400 business and government leaders attended the recent ceremonies dedicating American Cyanamid's $15 million titanium dioxide plant here. Principal speakers included Cyanamid's president K. C. Towe and Georgia's Governor Marvin Griffin.

► NORFOLK. The Virginia State Ports Authority has asked the Federal Maritime Board to investigate the "reasonableness and lawfulness" of charges and practices of terminal operators at other Atlantic and Gulf ports. The statement points out that wharfage and handling charges differ substantially at various southern ports.

► NEW YORK. Leon Lowenstein, chairman of the board of M. Lowenstein and Sons, Inc., last month announced the acquisition of the complete cotton operation of Pacific Mills. The transaction includes four mills at Columbia, S. C., known as Olympia, Granby, Capital City and Richland; the grey sheet mill and sheet factory and the finishing plant at Lyman, S. C., to be known as the Lyman Printing and Finishing Company, Inc.

► WASHINGTON. The AEC has announced awarding of the first lump sum contract for the fabrication of reactor fuel elements in a privately owned facility to Babcock and Wilcox Company. The company will fabricate the fuel assembly at a new plant now under construction at Lynchburg, Virginia, with first assemblies to be delivered in July.

► NORFOLK. Recently elected chamber of commerce president Harry O. Nichols has launched a program aimed at development of decadent areas of the downtown waterfront here. Suggesting the Norfolk Port Authority as possible developers Nicholas asserted "no part of this valuable asset shou'd remain idle."

► MOBILE. The Alabama State Docks Department has received a new Cessna 180-airplane for use in covering the port's service area. The airplane has a range of 600 miles and will be used primarily for business solicitation.

► BALTIMORE. Allied Research Products, Inc., manufacturers of finishes and process chemicals, has completed an expansion program doubling its area available for research and development activities. The new quarters are adjacent to existing facilities at 4004 E. Monument Street.

► BATON ROUGE. Louisiania's industrial economy has expanded at a $13 million a month rate during the last 42 months and "seems likely to top even that pace in 1956" according to Governor Robert F. Kennon.

Tennessee Products Adds $2.5 Million Plant

NASHVILLE. Start of construction by Tennessee Products & Chemical Corporation of a new $2,500,000 electric furnace plant at Rockwood, Tenn., that will permit a substantial initial increase in its production of ferro-alloys has been announced by Carl McFarlin, Sr., TP&CC president.

Tennessee Products & Chemical, a division of Merritt-Chapman & Scott Corporation's Chemical, Paint and Metallurgical Department, currently operates 13 plants in the South for the production of metallurgical products, chemicals, fuels and building materials.

The new plant will be located on a 150-acre site neighboring the Tennessee River, where Tennessee Products & Chemical already has barge loading facilities used for water-borne shipments by two pig iron blast furnaces the company now operates at Rockwood.

Designed to permit future expansion, the plant initially will be equipped with six electric furnaces, and will be adaptable for production of ferro-manganese, ferro-chrome, ferro-silicon, silico-manganese and other ferro-alloys.

Tennessee Products & Chemical plans to discontinue production of ferro-silicon at one of its two Chattanooga plants and increase facilities at the second for additional production of ferro-chrome and ferro-silicon. Production of ferro-manganese will be transferred from Chattanooga to Rockwood.

AMONG PROMINENT city officials who recently toured the expanded Velsicol Chemical Corporation plant in Memphis were (left to right) Col. Roane Waring, president of the Memphis Street Railway; M. W. Wade, secretary of the Memphis Light, Gas and Water Division; Walter Chandler, Mayor of Memphis; John M. Heiskell; John T. Dwyer, City Commissioner; and E. T. Collinsworth, Velsicol's executive vice president.

The Bulletin Board

"Cross-roads of the South"—the Bulletin Board section affords a meeting place for all those who are concerned with technological and industrial development in the Southern states.

Professional cards are sold in units measuring 1 5/8 inches wide by 3/4 inch deep. Rates are $12 for one-time insertion or $9 per insertion on a 12-time basis. Thus, a minimum card costs $108 per year.

VIRGINIA ENGINEERING COMPANY, INC.
GENERAL CONTRACTORS
NEWPORT NEWS, VIRGINIA
BUILDING • HEAVY • HIGHWAY • UTILITIES

Ford, Bacon & Davis
Engineers
CONSTRUCTION MANAGEMENT — NEW YORK — APPRAISALS REPORTS
CHICAGO : LOS ANGELES

Investigations and Reports — Appraisals Management
DESIGN • ENGINEERS • CONSTRUCTION
Industrials, Public Utilities, Process Plants
ENGINEERING CONSULTANTS
DAY & ZIMMERMANN, INC.
NEW YORK — PHILADELPHIA — CHICAGO

DE LEUW, CATHER & COMPANY
Consulting Engineers
Transportation, Public Transit and Traffic Problems

Industrial Plants	Grade Separations
Railroads	Expressways
Subways	Tunnels
Power Plants	Municipal Works

150 N. Wacker Drive, Chicago 6, Ill.
79 McAllister Street, San Francisco, Cal.

Wiedeman and Singleton
Consulting Engineers
WATER WORKS, SEWERS, SEWAGE DISPOSAL, APPRAISALS, VALUATIONS, REPORTS
760 W. Peachtree Street, N.W.
ATLANTA, GA.

Gustave M. Goldsmith
Consulting Engineer
General Structures
Plant Layout
Design—Investigation—Quantity Survey
1734 Bella Vista
CINCINNATI 37, OHIO

International Engineering Company, Inc.
ENGINEERS
Investigations — Reports — Design
Procurement — Field Engineering
Domestic and Foreign
74 New Montgomery St.,
San Francisco 5, California

FROEHLING & ROBERTSON, INC.
Inspection Engineers and Chemists
RICHMOND — F&R — VIRGINIA

Watson and Hart
Consultants for Civil, Electrical, Mechanical and Sanitary Engineering Problems.
GREENSBORO NORTH CAROLINA

Sverdrup & Parcel, Inc.
Consulting Engineers
Bridges, Structures and Reports, Industrial and Power Plant Engineering.
915 Olive Street, St. Louis, Mo.
417 Montgomery St., San Francisco, Cal.

Hunting, Larsen & Dunnells
Engineers
Industrial Plants—Warehouses
Commercial Buildings—Steel and Reinforced Concrete—Design and Supervision—Reports
1150 Century Bldg., Pittsburgh 22, Pa.

MICHAEL BAKER, JR., INC.
Consulting Engineers
Complete professional services for planning, design and supervision of construction of industrial plants, highways, airports, housing, sanitary sewers and waterworks, and related facilities.
Rochester, Pa.—Jackson, Miss.
College Park, Md.—Harrisburg, Pa.

WIGHT And COMPANY
Airfields - Pavements - Sewerage
Surveys - Reports - Municipal Improvements
Consulting Engineers
Downers Grove, Ill.

WHITMAN, REQUARDT AND ASSOCIATES
ENGINEERS — CONSULTANTS
Civil — Sanitary — Structural
Mechanical — Electrical
Reports, Plans, Supervision, Appraisals
1304 St. Paul St., Baltimore 2, Md.

ROBERT AND COMPANY ASSOCIATES
Engineering Division
ATLANTA
DESIGN • MODERNIZATION STUDIES • APPRAISALS
MACHINERY LAYOUTS • AIR CONDITIONING
POWER PLANTS

FREDERICK SNARE CORPORATION
Engineers—Contractors
HARBOR WORKS • BRIDGES • POWER PLANTS • DAMS • DOCKS AND TERMINALS.
DIFFICULT AND UNUSUAL FOUNDATIONS A SPECIALTY.
233 BROADWAY, NEW YORK CITY 7
HAVANA, CUBA; LIMA, PERU; BOGOTA, COLOMBIA; CARACAS, VENEZUELA; SAN JUAN, PUERTO RICO; GUAYAQUIL, ECUADOR.

PALMER AND BAKER, INC.
CONSULTING ENGINEERS — ARCHITECTS
Surveys—Reports—Design—Supervision—Consultation
Transportation and Traffic Problems
Tunnels—Bridges—Highways—Airports
Industrial Buildings
Waterfront and Harbor Structures
Graving and Floating Dry Docks
Complete Soils, Materials and Chemical Laboratories
MOBILE, ALA. — NEW ORLEANS, LA. — HARVEY, LA.

Frederic R. Harris, Inc.
CONSULTING ENGINEERS
F. H. Dechant, E. J. Quirin, E. H. Harlow
Piers and Bulkheads
Foundations, Soil Mechanics
Sanitary and Industrial Waste Disposal
Water Supply, Flood Control
Power, Industrial Plants, Buildings
27 William Street — New York
3 William Street — Newark
Fidelity Phila. Trust Bldg. — Philadelphia
Ferry Bldg. — San Francisco

Rader Engineering Co.
Water Works, Sewers, Refuse Disposal, Ports, Harbors, Flood Control, Bridges, Tunnels, Highways, Airports, Traffic, Foundations, Buildings, Reports, Investigations, Consultations.
111 N.E. 2nd Ave., Miami 32, Florida

Parsons, Brinckerhoff, Hall & Macdonald
Engineers
Bridges, Highways, Tunnels, Airports, Subways, Harbor Works, Dams, Canals, Traffic, Parking and Transportation Reports, Power, Industrial Buildings, Housing, Sewerage and Water Supply.
51 Broadway — New York 6, N. Y.

Harrington & Cortelyou
Consulting Engineers
Frank M. Cortelyou
E. M. Newman — F. M. Cortelyou, Jr.
Movable and Fixed Bridges of All Types, Foundations, and Related Structures.
1004 Baltimore — Kansas City 6, Mo.

SANDERSON & PORTER
CONSTRUCTION
REPORTS
SURVEYS
S&P

HOOSIER ENGINEERING COMPANY
Erectors of Transmission Lines
1384 HOLLY AVE., COLUMBUS, OHIO

POWER PLANTS---WATER WORKS
Contractors
BURFORD, HALL & SMITH
769 Hemphill Ave., N. W.
Atlanta, Georgia

GEMAR ASSOCIATES
CONSULTING
MATERIALS HANDLING
ENGINEERS
Over 20 Years Experience
Greenwich, Connecticut

HARDAWAY CONTRACTING COMPANY
Engineers *Contractors*
Water Power Development, Bridges
COLUMBUS, GEORGIA

Algernon Blair, Inc.
General Contractors
FIRST NATIONAL BANK BUILDING
MONTGOMERY, ALA.

Duval Engineering & Contracting Co.
General Contractors
FOUNDATION BORINGS
For Engineers and Architects
Jacksonville, Florida

WILEY & WILSON
CONSULTING ENGINEERS
Steam and Electric Distribution, Power Plants, Municipal Planning, Water Supply, Sewerage, Sewage and Water Treatment, Incinerators, Streets and Pavements, and Airports, Industrial Plants. Reports — Plans — Supervision
Main Office
620 Court Street
Lynchburg, Virginia
Branch Office
711 West Main St.
Richmond 20, Virginia

Classified Ads

The rate for classified ads is $15.40 per column inch. Minimum order is one-half inch, which gives six lines of six-point type. Advance proofs not submitted. No frequency discounts.

EQUIPMENT & SUPPLIES

Special
Bargain Offer

100—NEW 1 hp 1200 rpm 220/440 Volt Frame 204 U. S. Explosion Proofs Motors. **$90.** each
6—300 Ampere Hobart Motor Driven Electric Welders Like New. **$375.** each
2—ROTARY LIFT hydraulic Levelators NEW. 6000 and 8000# capacity. **50%** New Cost
20—New TRANE Model PL Steam Unit Heaters, 250,000 BTU per hour. **$175.** each

We can save you money on any electrical item—MOTORS - TRANSFORMERS - STARTERS - SWITCHES - WIRING MATERIAL

INDUSTRIAL ELECTRICAL & SUPPLY CO.
Box 1398 - **MEMPHIS, TENN.** - 37-1681

FOR SALE
1—Complete lime hydrating plant.
4' x 40' and 9' x 180' kilns.
42" x 16", 36" x 16" and 24" x 12" crushing rolls.
4½' x 30' and 8' x 125' dryers.
New Dryers—Kilns—Coolers.
Used & rebuilt grinding & crushing machinery.
Ball and Tube Mills.
W. P. HEINEKEN, INC., 50 Broad St., N. Y.

MOTORS · GENERATORS
TRANSFORMERS
NEW · REBUILT
WORLD'S LARGEST INVENTORY
ELECTRIC EQUIPMENT CO.
PHONE STATION COLLECT GL 6783
P.O. BOX 51 ROCHESTER 1, NEW YORK

CASH
FOR USED TRANSFORMERS

Convert your used transformers to cash! Send us a description of them TODAY.
Transformers and Coils built to your specifications. Send blueprints for prompt quotation.
TRANSFORMERS BOUGHT, SOLD and REPAIRED

THE ELECTRIC SERVICE CO.
5317 Hetzel St., Cincinnati 27, Ohio

NON-METALLIC CONDUIT SYSTEM
Complete with fittings. Shop fabricated to support any interior pipe and insulation for any hot or cold fluid, vapor or chemical.
Water-Tight Underground Conduit
P. O. Box 12211, Houston 17, Tex.
P. O. Box 2181, Atlanta 1, Ga.

BUSINESS OPPORTUNITIES

MANUFACTURERS — Write for our FREE Classification Sheet of Inventions for Sale, covering 135 main subjects, and in one or more of which you will doubtless be interested. ADAM FISHER CO., 5418 Idaho, St. Louis, Mo.

Manufacturers' Agent wants industrial accounts on commission basis. Well financed, capable in office duties, engineer, estimator, etc. Leads preferred. Write Box 731, Columbia, S. C.

NEW CASTLE, Virginia, needs a plant to employ 100 men. We have plenty of timber, three soft water streams, available factory sites, C & O Railroad. H. H. Huffman, Mayor.

4' American radial drill, mtr. on arm.
28" Shaper factory mtr. drv. vise.
4 spindle Allen sensi. drills ⅜ cap. 4 mtrs.
3 S Cincin. Univ. miller, mtr. dr. Vert. hd.
1½"-6" Williams pipe machine, mtr. & dies.
CLARENCE J. O'BRIEN
1032 Commercial Trust Bldg., Phila. 2, Pa.

Bulletin Board Listing

TO: Manufacturers Record, Conway Building, North Atlanta 19, Ga.

INSERT THE FOLLOWING, TO BEGIN IN YOUR NEXT ISSUE:

( ) Professional Card ( ) Classified Ad

.....

.....

.....

.....

.....

RUN THIS ( ) One time only ( ) 12 issues or 'til forbid.

METHOD OF PAYMENT ( ) Check enclosed ( ) Bill firm

SUBMITTED BY .....

FIRM .....

ADDRESS .....

ADVERTISERS IN THIS ISSUE

Ace Glass, Inc. 51
Agency: Ray Hawley

Affiliated National Hotels 43
Agency: Alert Advertising

Alabama Power Company .....3rd Cover
Agency: Sparrow Advertising

Allied Steel Products Corp. 44
Agency: Advertising Engineers Corp.

American Creosote Works, Inc. 42
Direct

American Lava Corporation 30
Agency: Power and Condon

American Telephone and Telegraph Co. 6
Agency: N. W. Ayer and Son, Inc.

Atlantic Steel Company 1
Agency: Lowe & Stevens

Bethlehem Steel Company 15
Agency: Jones & Brakeley, Inc.

Borden Metal Products Company 3
Agency: Gordon A. Pihl & Associates

Bristol Steel & Iron Works 45
Direct

Buffalo Tank Corporation 52
Direct

Joseph P. Cattie & Brothers, Inc. 45
Direct

Chattanooga Boiler & Tank Co. 45
Direct

Chattanooga Committee of 100 40
Agency: W. H. Douglass

Chattanooga Gas Company 26
Agency: Genie Advertising Services

Container Corp of America 37
Agency: N. W. Ayer and Son, Inc.

Dayton Chamber of Commerce 45
Direct

Diamond Manufacturing Company 52
Agency: Frederick B. Garrahan

Electric Power Board 31
Agency: Power and Condon

Eppinger & Russell Company 52
Direct

General Coal Company 42
Agency: Aitkin-Kynett Company

Glamorgan Pipe & Foundry Company . 45
Direct

Halco Scientific Instrument Company . 58
Direct

W. A. Hammond Drierite Company ... 2
Direct

Industrial Properties Corporation 60
Agency: John Peyton Dewey Advertising

Interstate Life & Accident Ins. Co., Provident Life & Accident, and Volunteer State Life & Accident Insurance Companies 39
Agency: Power and Condon

Kerrigan Iron Works, Inc. .....Fourth Cover
Agency: C. P. Clark, Inc.

Kontes Glass Company 16
Agency: Nemarow Advertising

Harold Kruger Instruments 16
Agency: Allen, Dorsey & Hatfield

The R. C. Mahon Company ..Second Cover
Agency: Anderson, Inc.

Manhattan Perforated Metal Co. 45
Direct

Metalplate Company 44
Direct

Charles Mundt & Sons 52
Direct

Nashville Bridge Company 60
Direct

Newport Steel Corporation 17
Agency: Jaap-Orr Company

Norfolk & Western Railway Company . 8
Agency: Houck and Company

H. K. Porter Company, Inc. 12
Agency: Robert Luckie & Company

Real Estate Management, Inc. 34
Direct

Rockwell Spring & Axle Co. 51
Agency: Paxson Advertising, Inc.

Joseph T. Ryerson & Son, Inc. 57
Agency: Calkins & Holden, Inc.

St. Petersburg Chamber of Commerce . 48
Agency: Alfred L. Lino & Associates

Sand Spring Home Interests 44
Agency: Gibbons Advertising, Inc.

E. H. Sargent and Company 4
Agency: Kreicker and Meloan, Inc.

Seaboard Air Line Railroad 21
Agency: The Caples Company

Southern Lightweight Aggregate Co. ... 47
Agency: Cabell Eanes, Inc.

Stein Construction Company 33
Agency: Power and Condon

Tennessee-Alabama-Georgia Railway Co. 35
Agency: Mitchell WerBell Advertising

U. S. Pipe & Foundry Company 19
Agency: H. B. Humphrey, Alley & Richards

United States Steel Corp., Tenn. Coal & Iron Div. .....54 & 55
Agency: Batten, Barton, Durstein & Osborn

Hyman Viener and Sons 58
Direct

WDEF-TV 34
Agency: Power and Condon

Wheland Company 32
Agency: Power and Condon

Will Corporation and Subsidiaries 23
Agency: Hutchins Advertising Co.

Wisconsin Motor Corporation 12
Agency: Paulson-Gerlach & Associates, Inc.

NOTES

► LOUISVILLE. A new firm has been added to the industrial enterprises of Thomas Industries, Inc., here. The new acquisition is Deslauriers Column Mould Company of Chicago, manufacturers of bathroom cabinets.

► MOBILE. A 29-man committee has been set up to promote plans for an international trade mart here similar to the one in New Orleans. Chairman of the group is H. A. Pharr, president of the First National Bank of Mobile.

► HOUSTON. The Research and Statistics Department of the Houston Chamber of Commerce has estimated that during 1955 construction here totalled $344 million. This included 18,000 new residential units totalling $156 million.

► BIRMINGHAM. Plans for a $2 million expansion of Central Foundry Company's plant here have been announced by J. J. Nolan, Jr., president. The company's sales are said to have increased from $6 million in 1946 to $20 million in 1954.

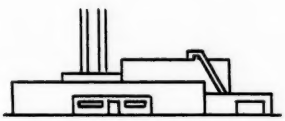
► The Florida State Chamber of Commerce has contracted for construction of a $460,000 headquarters building in Jacksonville. Builders are Hillyer and Lovan, Inc.

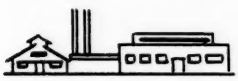
► Houston Endowment, Inc., a trust fund set up by Mr. and Mrs. Jesse H. Jones, has donated an additional $1 million for buildings at Rice Institute, Houston. A second gift of $37,500 for research in the field of nutrition went to Texas State College for Wowen in Denton.

► The moon is within the reach of today's rockets using solid propellant motors according to Dr. Harold W. Ritchey, technical director of the Redstone Division of Thiokol Chemical Corporation. Ritchey made this statement in a recent talk before a professional group in Trenton, New Jersey.

► A recent list of 225 grants in support of science made by the National Science Foundation included three projects at the University of Arkansas; five at Florida State College; five to Georgia institutions; two in Kentucky; one in Louisiana; six in Maryland; three in North Carolina; one in South Carolina; six in Tennessee; three in Texas; and three in Virginia.

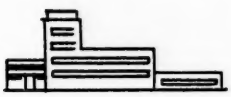
During 1955, record industrial expansion was announced for Alabama. Capital investments of $360,000,000 will represent 64 new plants or expansions of existing industry.





ALABAMA POWER COMPANY

Helping Develop Alabama



Our Industrial Development Department will gladly supply confidential information relating to locations for your type of business. There is no obligation.

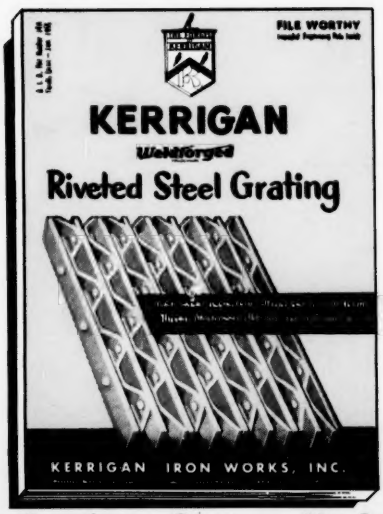
A KERRIGAN
Grating for Every Need
A CATALOG
for Every Grating
WRITE FOR YOUR COPY NOW!

Truly, in both size and type, there is a Kerrigan Weldforged grating for every need. Let our new catalogs prove it to you. Send for the one you think best answers your need (or ask for ALL FOUR if you wish). We will also be glad to send you a desk-size grating sample. Write Kerrigan Iron Works, Inc., General Sales Office, 274 Madison Ave., New York City.

STEEL
for the 1001 applications where safety and strength come first. Kerrigan Steel Grating is BONDERIZED for corrosion resistance and extra years of life.

STAINLESS and MONEL
non-magnetic steel for the chemical, oil and packing industries . . . for ANY installation where high resistance to heat, acids, chemicals, and corrosion is needed.

ALUMINUM
spark-proof for those whose need is strength AND lightness. Extra safe and strong. Allowable fiber stress 15,000 psi. Modulus of elasticity 10,000,000 psi.



RIVETED STEEL
where it is desired to match existing grating.

THE FORGE OF KERRIGAN

EXTRA CLOSE SPACED
PLAIN • SERRATED

Kerrigan Grating—Custom-Made for YOUR Job and SAFE because it's *Weldforged*
TRADEMARK